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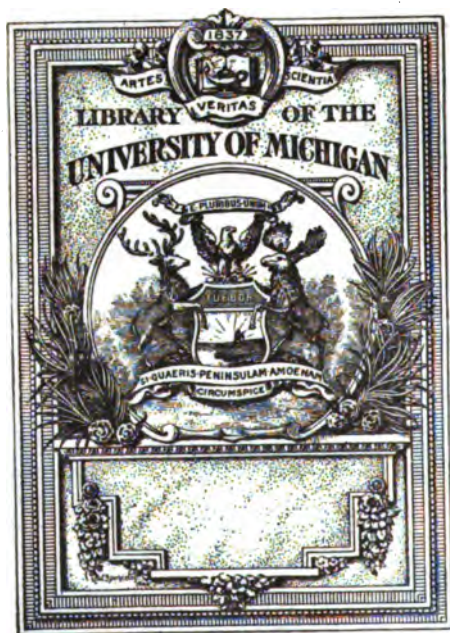
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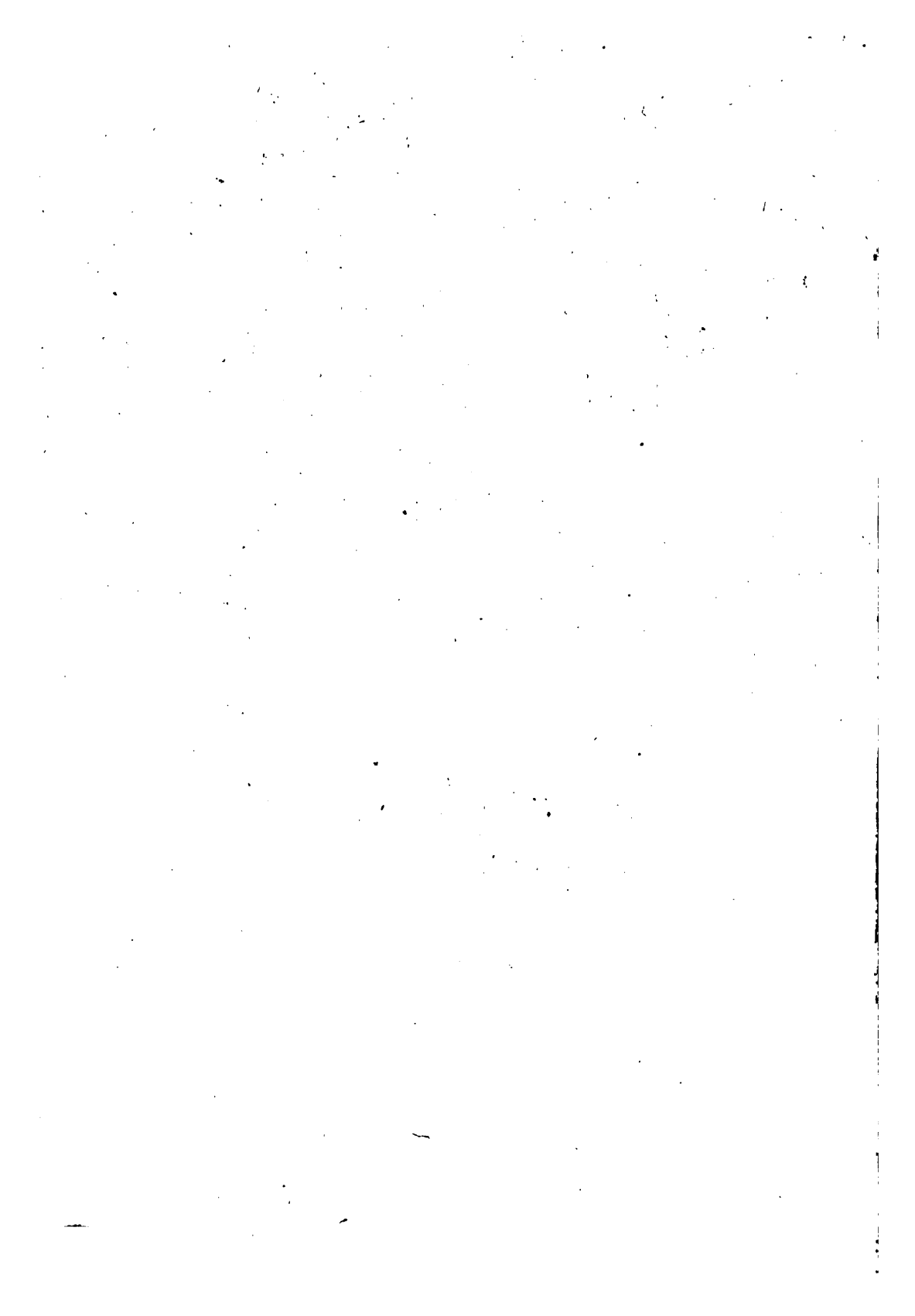
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March, 1911

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NORTH CAROLINA
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1911

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CALENDAR

1911

<i>June 5-July 15</i>	Summer Term for Teachers.
<i>June 15-August 25</i>	Summer Law School.
<i>September 6-9</i>	<i>Wednesday to Saturday.</i> Examinations for Removal of Conditions.
<i>September 11-13</i>	<i>Monday to Wednesday.</i> Entrance examinations. Registration.
<i>September 14</i>	<i>Thursday.</i> Lectures begin.
<i>October 12</i>	<i>Thursday.</i> University Day.
<i>November 28</i>	Thanksgiving Day.
<i>December 22</i>	<i>Friday.</i> Christmas Recess begins.

1912

<i>January 2-3</i>	<i>Tuesday and Wednesday.</i> Registration.
<i>January 4</i>	<i>Thursday.</i> Lectures begin.
<i>January 15-25</i>	Mid-Year Examinations.
<i>January 26</i>	<i>Friday.</i> Lectures begin.
<i>February 22</i>	<i>Thursday.</i> Washington's Birthday.
<i>May 4</i>	<i>Saturday.</i> Selection of Commencement Orators.
<i>May 13</i>	<i>Monday.</i> Last Day for Delivery of Graduating Theses at Registrar's Office.
<i>June 1</i>	<i>Saturday.</i> Senior Class Day. Inter-Society Banquets and Reunions.
<i>June 2</i>	<i>Sunday.</i> Baccalaureate Sermon. Sermon before the Y. M. C. A.
<i>June 3</i>	<i>Monday.</i> Alumni Day. Meeting of the Board of Trustees. Inter-Society Debate.
<i>June 4</i>	<i>Tuesday.</i> Commencement Day. Summer Vacation begins.
<i>September 4-7</i>	<i>Wednesday to Saturday.</i> Examinations for Removal of Conditions.

PART ONE

FOUNDATION AND GOVERNMENT

TRUSTEES

FACULTY

COMMITTEES

THE UNIVERSITY

FOUNDATION AND GOVERNMENT. The University was established in obedience to the first Constitution of the State, which was adopted in December, 1776. A clause of section XLI declared that "all useful learning shall be duly encouraged, and promoted in one or more universities." The charter was granted by the General Assembly in 1789, the cornerstone of the Old East Building was laid in 1793, and the University was opened in 1795.

The title, preamble, and first section of the Act of incorporation are as follows:

"An Act to Establish a University in this State."

"WHEREAS in all well regulated Governments, it is the indispensable Duty of every Legislature to consult the Happiness of a rising Generation, and endeavor to fit them for an honorable Discharge of the Social Duties of Life, by paying the strictest attention to their Education: And whereas an University supported by permanent Funds, and well endowed, would have the most direct Tendency to answer the above Purpose:

"I. *Be it therefore enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the Authority of the Same, That, Samuel Johnson, James Iredell, Charles Johnson, Hugh Williamson, Stephen Cabarrus, Richard Dobbs Spaight, William Blount, Benjamin Williams, John Sitgreaves, Frederick Hargett, Robert Snead, Archibald Maclaine, Honourable Samuel Ashe, Robert Dixon, Benjamin Smith, Honourable Samuel Spencer, John Hay, James Hogg, Henry William Harrington, William Barry Grove, Reverend Samuel M^cCorkle, Adlai Osborne, John Stokes, John Hamilton, Joseph Graham, Honourable John Williams, Thomas Person, Alfred Moore, Alexander Mebane, Joel Lane, Willie Jones, Benjamin Hawkins, John Haywood, senior, John Macon, William Richardson Davie Joseph Dixon, William Lenoir, Joseph M^cDowell, James Holland and*

William Porter, Esquires, shall be and they are hereby declared to be a body politic and corporate to be known and distinguished by the name of *The Trustees of the University of North Carolina* * and by that name shall have perpetual Succession and a common Seal; and that they the Trustees and their Successors, by the Name aforesaid, or a Majority of them, shall be able and capable in Law to take, demand, receive and possess all Monies, Goods and Chattels that shall be given them for the Use of the said University, and the same apply according to the Will of the Donors, and by Gift, Purchase or Devise to take, have, receive, possess, enjoy and retain to them and their Successors forever, any Lands, Rents, Tenements and Hereditaments, of what Kind, Nature or Quality soever the same may be, in special Trust and Confidence that the same or Profits thereof shall be applied to and for the Use and Purpose of establishing the said University.”†

The University is governed by a board of trustees elected by the Legislature and is free from sectionalism, sectarian, or political control. The Governor of the State is *ex-officio* President of the Board of Trustees.

Article IV of the Constitution of 1876 contains the following provisions regarding the University:

“Sec. 6. The General Assembly shall have power to provide for the election of Trustees of the University of North Carolina, in whom, when chosen, shall be vested all the privileges, rights, franchises, and endowments thereof, in anywise granted to or conferred upon the Trustees of said University; and the General Assembly may make such provisions, laws, and regulations from time to time as may be necessary and expedient for the maintenance and management of said University.

“Sec. 7. The General Assembly shall provide that the benefits of the University, as far as practicable, be extended to the youth of the State free of expense for tuition: also all the property which

*The corporate name has been changed to The University of North Carolina.

†Laws of the State of North Carolina, published by James Redell, Edenton, MDCCXCI.

has heretofore accrued to the State, or shall hereafter accrue, from escheats, unclaimed dividends, or distributive shares of the estates of deceased persons, shall be appropriated to the use of the University."

LOCATION. The seat of the University is Chapel Hill, Orange county, twenty-eight miles northwest of Raleigh. Two daily passenger trains run between Chapel Hill and University Junction, a station on the North Carolina Railroad. The site for the institution was selected because of its healthfulness, its freedom from malaria, its supply of pure water, its beautiful scenery, and its central location in the State.

EQUIPMENT. The University campus contains forty-eight acres of land, affording ample grounds for building and for all sorts of athletic sports. The University owns, contiguous to the campus, five hundred acres of forest lands, which are partly laid off in walks and drives. The University has twenty-one buildings.

The South Building contains two lecture rooms and thirty living rooms.

The Old East Building contains two lecture rooms and twenty-eight living rooms.

The Old West Building contains two lecture rooms, the Historical Museum, and twenty-seven living rooms.

Person Hall contains the Medical Laboratories and a lecture room.

Gerrard Hall is used for morning prayers, for mass meetings and other student assemblies, and for public lectures.

Smith Hall contains the Law library and lecture rooms.

The New West Building contains the Dialectic Literary Society's Hall, the Pharmaceutical Laboratory, two lecture rooms, and nine living rooms.

The New East Building contains the Philanthropic Literary Society's Hall, the Geological Laboratory and Museum, the offices of the North Carolina Geological Survey, and fourteen living rooms.

Memorial Hall commemorates the illustrious dead of the University. It is used at Commencement for public exercises.

The Alumni Hall contains the offices of administration, the

Physical Laboratories, and ten lecture rooms.

The Carr Building, the gift of Gen. J. S. Carr, contains forty-two living rooms for dormitory use.

The Mary Ann Smith Building contains forty living rooms for dormitory use.

The William Preston Bynum, Jr., Gymnasium is the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893. It is furnished with modern apparatus, swimming pool, baths, lockers, and running track; and contains a trophy room and the office of the Instructor in Physical Training.

The Young Men's Christian Association Building, recently completed, gives greater efficiency to the valuable work already being done by the Association.

Chemistry Hall contains Chemical Laboratories, lecture rooms, offices for the instructors, and store rooms.

The new *Library* building, given by Andrew Carnegie, Esq., has now been in use for three years.

Davie Hall, the Biological Laboratory, contains laboratories and lecture rooms for zoology and botany.

The Dissecting Hall is a new, well arranged building for the use of the Medical School, and is apart from the other buildings.

The New Infirmary, a spacious and completely equipped building, was thrown open to the students at the beginning of the session before last.

Commons contains a dining hall where students obtain board at ten dollars a month. The whole enterprise was made possible through the beneficence of Mrs. Frederick Baker, of New York.

University Inn, recently purchased, is used for dormitory purposes, and contains a dining hall where students obtain board at fifteen dollars a month.

The Power House contains the electric lighting plant, the central heating plant, filter and pumps of the system of water supply, and the rooms of the University Press.

The general equipment has been improved by a thorough system of sewers and baths, a supply of pure water in all the build-

ings, and hot water heat in all the offices, recitation rooms, and reading rooms.

COLLEGE YEAR. The College year begins on the second Thursday in September. It is divided into two terms of four and a half months each. Commencement is held on Tuesday before the first Thursday in June. The summer vacation begins on Commencement day and ends on the Wednesday before the second Thursday in September. There is a Christmas recess of about ten days. The twelfth of October (University Day), Thanksgiving Day, and the twenty-second of February (Washington's Birthday) are holidays.

DEGREES. The degrees of Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Bachelor of Laws, and Graduate of Pharmacy are conferred by the vote of the Trustees, after the recommendation of the Faculty, upon candidates who have satisfied the requirements of residence and study at the University. Students who are not candidates for a degree may elect any studies they wish, devoting their time entirely to one or two subjects, or selecting groups of such subjects as suit their tastes and purposes.

GRADUATE STUDENTS. Free instruction is given in the College to graduates of colleges, and universities. Women are admitted to the higher courses of the University.

PHYSICAL TRAINING. Hearty encouragement is given to athletic sports and to all kinds of physical culture. The athletic field furnishes ample facilities for football and baseball. The Lake Track is admirably adapted for running, bicycling, and general track athletics. Fifteen tennis courts are located on the campus. Systematic exercise in the Bynum Gymnasium under a skilled instructor is required of all students in the College, except Seniors.

GENERAL CULTURE. Prayers are conducted in Gerrard Hall, with the reading of the scriptures and singing, every weekday morning except Saturday, at 9:25 o'clock. Attendance at this service is required of all undergraduates, unless especially excused. Bible classes for young men are taught in each of the four churches of the village every Sunday. Religious services are held twice a week, or oftener, in each church. A series of sermons is delivered

annually by the University Preachers, chosen by the Trustees from the various denominations. Bible lectures are delivered every Sunday morning in Gerrard Hall. The Young Men's Christian Association meets three times a week, for prayer and other services, and conducts a series of Bible courses, which are numerous attended by the students.

DISCIPLINE. The University endeavors to make young men manly and self-reliant, and to develop character by educating the conscience. The Faculty may, at their discretion, admonish, suspend, or dismiss students for neglect of duty or for misconduct.

MEDICAL ATTENDANCE. On the payment of an annual fee of \$5.00, each student receives the careful attention of the University Physician. In this way the best medical advice is to be had at the least cost. The Infirmary, under the supervision of the University Physician and provided with a trained nurse, affords the conveniences and comforts necessary for the students in their sickness.

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*The legal term of office expires November 30 of the year indicated.

1913

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 Durham.
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CHARLES HOLMES HERTY, Ph.D., Smith Professor of General and
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*To be elected.

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LEE FRANKLIN TURLINGTON, Assistant in Zoology.

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JAMES RICHARD ALLISON, Assistant in the Gymnasium.
ALBERT EDGAR WOLTZ, A. M., Bursar.
CHARLES THOMAS WOOLLEN, Proctor.
THOMAS JAMES WILSON, JR., Ph.D., Registrar.

MARVIN HENDRIX STACY, A.M., Recorder of Absences

EDWARD P. HALL, General Secretary of the Young Men's Christian Association.

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AUDITING. Professors Cain, Patterson.

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COMMONS. Professors Stacy, McKie.

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PUBLIC LECTURES. Professors Herty, P. Cobb, Bain, McGehee, MacNider.

DEBATES. Professors Williams, Raper, Graham.

SELF HELP. Professors Stacy, Hickerson.

UNIVERSITY PRESS ASSOCIATION. Professor Graham.

UNIVERSITY SERMONS. Professors Mims, Raper, Patterson.

UNIVERSITY PRESS. Professor C. Cobb.

ALUMNI ORGANIZATIONS. Professors Bernard, T. J. Wilson, P. Cobb, Patterson.

GRADUATE SCHOOL. President Venable; Professors Raper, Graham, Howe.

ENTRANCE CERTIFICATES. Professors Walker, Hamilton, Royster, Hickerson.

UNIVERSITY BULLETIN. Professors Stacy, McKie.

SCHEDULES. Professors T. J. Wilson, Stacy.

LIBRARY APPROPRIATIONS. President Venable; Professors Raper, Graham.

MENAIR LECTURES. President Venable; Professors Graham, Herty, Coker.

ABSENCES. Professors Patterson, Stacy.

ADVANCED STANDING. President Venable; Professors Howe, T. J. Wilson.

PART TWO

**THE COLLEGE OF LIBERAL ARTS
THE SCHOOL OF APPLIED SCIENCE
THE GRADUATE SCHOOL**

THE COLLEGE OF LIBERAL ARTS

There are three courses of instruction outlined in The College of Liberal Arts. The object of these courses is to provide a general, well-rounded, liberal education. The first two years of each allow but little election of studies. Beginning with the Junior year the election is wider, and a student can devote himself, to a large extent, to such special lines of study as he may prefer, although there are certain general restrictions designed to guard against too narrow a specialization. The first course, requiring both Greek and Latin, corresponds to the old classical course. The second course is a combination of ancient and modern languages and science. The third course is largely scientific. All of these courses lead to the one degree of Bachelor of Arts, and they are so balanced as to make the work equally difficult and worthy.

ADMISSION

Admission into the Freshman Class

Candidates for admission into the Freshman Class are received by examination or by certificates from accredited schools.

Entrance examinations are held in September. Arrangements have been made with certain schools in the State whereby examinations for admission may be held in May, also, at the schools. The University will accept the uniform entrance examination papers of the Association of Colleges and Preparatory Schools of the Southern States, provided such papers are properly vouched for and sent sealed to the University for grading. Candidates for admission by examination must report at 9 A. M., *Monday, September 11, 1911*, to the Registrar, who will appoint time and place for examination.

Students who present certificates of work accomplished at preparatory schools and colleges may be admitted without examination, provided the certificates are approved. The right to exam-

ine, however, is reserved, when such a course is deemed necessary. Certificates must be made out on the printed forms furnished on application to the Registrar, and should be sent in as early as possible in the summer vacation. They must be submitted for approval to the Committee on Entrance Certificates in No. 10 Alumni Building during the period of registration (*September 11, 12, 13, 1911.*)

Subjects Accepted for Entrance

The complete list of subjects accepted for entrance is as follows:

*English <i>a, b</i> ,.....	3. units
History <i>a, b, c</i> ,.....	3. units
Mathematics <i>a, b, c, d</i> ,.....	3.5 units
Greek <i>a, b, c</i> ,.....	3. units
Latin <i>a, b, c, d, e</i> ,	4.7 units
French <i>a, b</i> ,.....	3 units
German <i>a, b</i> ,.....	3. units
Spanish.....	2. units
Botany.....	1. unit
Chemistry.....	1. unit
Physics.....	1. unit
Zoology.....	1. unit
Drawing.....	1. unit
Civics.....	.5 unit
Physiography.....	.5 unit
Physiology.....	.5 unit

It will be noticed that each subject has a valuation by units. A unit means a definite amount of a subject satisfactorily completed in a reasonable length of time. For example, one unit in History means the satisfactory completion of a standard text book in English or United States History in a period of study continuing through an entire High School session; one-half unit in Solid Geometry means the completion of the four books of Solid Geometry in about one-half a session; the fourteen units mentioned below correspond to the four years of work in a good High School.

Unconditioned entrance to the undergraduate departments of the University requires a total of 14 units selected from the list above.

*For specific requirements in each of the subjects in this list, see pp 28-31.

A candidate, however, who desires to pursue any one of the regular courses leading to a Bachelor's degree must make his selection from the list of accepted subjects accord with the course to be pursued after entrance. Thus, the undergraduate course requiring Greek, Latin, Mathematics, and English necessitates the selection on the part of the candidate of a specified number of units in each of these branches (see below). The same is true, also, of entrance to all other courses. It is possible, therefore, that a candidate who offers a total of 14 units may nevertheless be conditioned on one or more branches, if he has failed to prepare himself adequately for the particular course which he desires to pursue after entrance.

The following tables indicate the requirements for entrance to each of the three courses leading to the degree of Bachelor of Arts (see page 33):

For entrance to group 1:

English <i>a</i> and <i>b</i>	3.	units
History <i>a</i> or <i>b</i>	2.	units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i>	3.	units
Greek <i>a</i> and <i>b</i>	2.	units
Latin <i>a</i> , <i>b</i> , <i>c</i> , and <i>d</i>	3.7	units
Elective .....	.3	unit

For entrance to group 2:

English <i>a</i> and <i>b</i>	3.	units
History <i>a</i> or <i>b</i>	2.	units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i>	3.	units
Latin <i>a</i> , <i>b</i> , <i>c</i> , and <i>d</i>	3.7	units
French <i>a</i> or German <i>a</i>	2.	units
Elective .....	.3	unit

For entrance to group 3:

English <i>a</i> and <i>b</i>	3.	units
History <i>a</i> or <i>b</i>	2.	units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i>	3.	units
French <i>a</i>	2.	units
German <i>a</i>	2.	units
Science	1.	unit
Elective	1.	unit

At the discretion of the Committee on Entrance Certificates candidates may be admitted with conditions, provided the total number of units offered does not fall below the minimum of 12 units, and provided the conditions are of such nature that, in the judgment of the Committee, they may be removed according to the regulations given in the next paragraph. The Committee has the discretionary power to admit certain candidates whose credits fall below 12 units, if, in the opinion of the Committee, the maturity of the candidate or his special object in view justifies such action. Candidates thus admitted will be classed as special students.

Entrance conditions in any subject except French, German, Greek, or Physics must be made up by September of the following year. A student who fails to comply with this regulation will not be allowed* to register for any course in his Sophomore year. The exception of French, German, Greek, and Physics is made because few schools of the State are yet able to offer complete preparation in these branches. For this reason these courses are taught in the University, and an entering student is allowed two years in which to complete them.

The requirements in each of the subjects accepted for entrance are as follows:

English: (a) Reading and Practice..... 1.5 units

- A. Two books from the following: 1. Shakespere's *As You Like It*, 2. *Henry V*, 3. *Julius Caesar*, 4. *The Merchant of Venice*, 5. *Twelfth Night*.
- B. One book from the following: 1. *Bacon's Essays*; 2. *Bunyan's The Pilgrim's Progress, Part I*; 3. *The Sir Roger de Coverley Papers in the Spectator*; 4. *Franklin's Autobiography*.
- C. One book from the following: 1. *Chaucer's Prologue*; 2. *Selections from Spencer's Faerie Queene*; 3. *Pope's The Rape of the Lock*; 4. *Goldsmith's The Deserted Village*; 5. *Palgrave's Golden Treasury (First Series), Books I and II* (special attention to *Dryden, Collins, Gray, Cowper, and Burns*).
- D. Two books from the following: 1. *Goldsmith's The Vicar of Wakefield*; 2. *Scott's Ivanhoe*, 3. *Quentin Durward*; 4. *Hawthorne's The House of Seven Gables*; 5. *Thackeray's Henry Esmond*; 6. *Mrs. Gaskell's Cranford*; 7. *Dickens's A Tale of Two Cities*; 8. *George Eliot's Silas Marner*; 9. *Blackmore's Lorna Doone*.

- E.** Two books from the following: 1. Irving's *Sketch Book*; 2. Lamb's *Essays of Elia*; 3. De Quincey's *Joan of Arc and the English Mail-Coach*; 4. Carlyle's *Heroes and Hero Worship*; 5. Emerson's *Essays* (selected); 6. Ruskin's *Sesame and Lilies*.
- F.** Two books from the following: 1. Coleridge's *The Ancient Mariner*; 2. Scott's *The Lady of the Lake*; 3. Byron's *Mazeppa and the Prisoner of Chillon*; 4. Palgrave's *Golden Treasury* (First Series), Book IV (special attention to Wordsworth, Keats, and Shelley); 5. Macaulay's *Lays of Ancient Rome*; 6. Poe's *Poems*; 7. Lowell's *The Vision of Sir Launfal*; 8. Arnold's *Sohrab and Rustum*; 9. Longfellow's *The Courtship of Miles Standish*; 10. Tennyson's *Gareth and Lynette, Lancelot and Elaine, and The Passing of Arthur*; 11. Browning's *Poems* (selections).

The candidate is expected to have sufficient knowledge of these books to enable him to answer general questions on their substance. The form of the examination will be the composition of paragraphs on a number of topics connected with the works. The ability of the candidate to express his ideas in clear, accurate English is a main consideration. No applicant should present himself who is notably deficient in spelling, grammar, or paragraphing.

(b) Study and Practice..... 1.5 units

Shakespeare's *Macbeth*; Milton's *L'Allegro, Il Penseroso, Comus, and Lycidas*; Burke's *Speech on Conciliation with America*, or Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; Macaulay's *The Life of Johnson*, or Carlyle's *Essay on Burns*.

The questions on these books will be on subject matter and structure.

History: (a) The histories of the United States, Greece, and Rome, as outlined in the best text books for high schools 2. units

(b) The histories of the United States and England as outlined in the best text books for high schools.. 2. units

(c) Mediaeval History..... 1. unit

Mathematics: (a) Algebra 1.5 units

The whole of a high school algebra including quadratic equations, binomial theorem, and progressions.

(b) The whole of Plane Geometry..... 1. unit

- (c) The whole of Solid Geometry..... .5 unit
 (d) Trigonometry..... .5 unit
 Plane trigonometry and spherical trigonometry through right triangles.
- Greek: (a) Grammar and Composition..... 1. unit
 Acquaintance with the more usual forms and constructions; simple narrative in English, based upon Xenophon's *Anabasis*, to be translated into Greek.
 (b) Xenophon..... 1. unit
 The first four books of the *Anabasis*.
 (c) Homer..... 1. unit
 The first three books of the *Iliad* (omitting II., 494—end), with study of Homeric forms, constructions, and prosody.
- Latin: (a) Grammar and Composition..... 1. unit
 Forms, syntax, and prosody; simple narrative in English, based upon the prose read, to be translated into Latin.
 (b) Caesar..... 1. unit
 The first four books of the *Gallic War*.
 (c) Cicero7 unit
 The four orations against Catiline.
 (d) Vergil..... 1. unit
 The first six books of the *Aeneid*, study of hexameter verse.
 (e) Cornelius Nepos..... 1. unit
 The first fifteen lives.
- French: (a) Elementary..... 2. units
 The forms and uses of the various parts of speech, including irregular verbs; translation of 250 or more pages of easy prose into idiomatic English; translation of simple English sentences into French; pronunciation.
 (b) Intermediate..... 1. unit
 Translation of 400 or more pages of French of ordinary difficulty.
- German: (a) Elementary..... 2. units
 Inflection, including the most common strong verbs; the ordinary laws of German syntax; translation of 200 or more pages of easy German into idiomatic English; trans-

lation of simple English sentences, based upon passages read, into German.

(b) Intermediate... 1. unit

Translation of 400 or more pages of German of ordinary difficulty.

Spanish: Elementary 2. units

Inflections, including the most common irregular verbs; ordinary laws of syntax; translation of 250 pages or more of easy Spanish into idiomatic English; translation of simple English sentences, based upon the passages read, into Spanish.

Botany: 1. unit

A course such as is contained in any standard text book; laboratory work.

Chemistry: 1. unit

A course such as is contained in any standard text book; laboratory work.

Physics: 1. unit

A course such as is contained in Millikan and Gale's Physics or Carhart and Chute's High School Physics; laboratory work such as is outlined in Millikan and Gale's Physics.

Physiography:5 unit

A course such as is contained in any standard text book.

Physiology:5 unit

A course such as is contained in any standard text book.

Zoology: 1. unit

A year's course such as is contained in any standard text book.

Civics:5 unit

A course such as is contained in any standard text book.

Drawing: 1. unit

A year's work, including simple geometrical plane and solid figures, simple pieces of machinery; elementary rules of perspective, light, and shade, as applied in freehand sketching.

Admission to Advanced Standing

A candidate for advanced standing may be admitted to the Sophomore, Junior, or Senior Class, with or without complete examination. He is subject not only to the examinations required of candidates for admission into the Freshman Class, but to special examinations both in all the required studies already pursued by the class which he desires to enter, and in as many electives studies as would have been required of him as a member of that class. When satisfied with the apparent fitness of the candidate, the examining committee may, in spite of his deficiencies in some studies, admit him to an advanced class; but a candidate so admitted is not recommended for the degree until the deficiencies are made good. The examining committee may accept, also, with proper restrictions, the official report of work satisfactorily completed at a college or university of good standing in place of an examination upon such previous work.

A candidate for advanced standing should present himself for examination on the same days and at the same hours as candidates for admission in the Freshman Class.

THE COLLEGE OF LIBERAL ARTS

Courses Leading to the Degree of Bachelor of Arts

In order to be recommended for the degree of Bachelor of Arts, the student must have passed satisfactory examinations in all the studies required in one of the groups prescribed for the Freshman and Sophomore years, and in a number of elective studies during the Junior and Senior years sufficient to amount to an average of fifteen hours of lectures or recitations a week for each of these years.

The group of studies selected for the Freshman and Sophomore years must correspond to the group of subjects offered for entrance.

Freshman Year

GROUP 1.	GROUP 2.	GROUP 3.
English 1 (3)*	English 2 (3)	English 1 (3)
Mathematics 1 (4)	Mathematics 1 (4)	Mathematics 1 (4)
Greek 1 (4)	Select } Greek 1 (4)	German 1 (3)
Latin 1 (4)	one } Latin 1 (4)	French 1 (3)
Public Speaking 1 (1)	Select } German 1 (3)	History 1 (3)
	one } French 1 (3)	Public Spkg 1 (1)
		History 1 (3)

Sophomore Year

GROUP 1.	GROUP 2.	GROUP 3.
Select } English 2 (3)	English 2 (3)	English 2 (3)
one } Greek 2 (3)	{ Greek 2 (3)	Math. 2 (3)
Select } Latin 2 (3)	Select } Latin 2 (3)	Chem. 1 (3)
one } Greek 2 (3)	two } German 1 (3)	Physics 1 (3)
Select } Latin 2 (3)		Elective (3)
one } German 1 (3)	Select } French 1 (3)	
	one } German 2 (3)	
	Select } French 2 (3)	
	one } Math. 2 (3)	
Select } Chem. 1 (3)		
one } Physics 1 (3)		
	Elective (3)	
Elective (3)		

*Numerals in parentheses indicate the number of hours a week in each study.

SOPHOMORE ELECTIVES: Greek 2 (3), Latin 2 (3), German 1 (3), French 1 (3), History 3 (3), History 8 (3), Botany 1 (3), Chemistry 1 (3), Geology 1 (3), Mathematics 2 (3), Physics 1 (3), Zoology 1 (3).

The selection made must in each case be submitted to Professor Howe for approval.

Junior Year

ELECTIVE STUDIES amounting to fifteen hours a week, of which at least one study must be taken from each of the following groups, A, B, and C:

A

English 3 (3), 4 (3), 5 (3), 6 (3), 8 (2), 9 (2), 10A (1 1-2), 10B (1 1-2), 14 (3), 16 (2).

Public Speaking 2 (2), 3 (2).

Greek 2 (3), 4 (2), 5 (1), 6 (2), 7 (3), 9 (1), 10 (1-2), 14A (1), 14B (1), 15 (2), 16 (1), 18 (2).

Latin 2 (3), 4 (2), 5 (2), 6 (2), 7 (1), 7A (1), 8 (1), 9 (2), 10 (2), 13 (2), 15 (2), 16 (1).

German 2A (3), 2B (3), 3 (3), 4 (3), 5 (3), 6 (3), 7 (3).

French 2 (3), 3 (3), 4A (3), 4B (3), 5 (3).

Spanish 1 (3), 2 (3), 3 (2).

Italian 1 (3).

B

History 2 (2), 3 (3), 4 (2), 6 (1), 7 (3), 8 (3), 9 (2), 11 (1), 12A (1), 12B (1)

Philosophy 1 (3), 2 (2), 3 (2), 4 (3).

Economics 1 (3), 4 (3), 5 (2).

Education 1 and 2 (3), 3 (1 1-2), 4 (1 1-2), 5 (1), 6 (1), 7 (1 1-2), 8 (1 1-2), 9 (3).

C

Mathematics 2 (3), 3 (3), 3A (3), 3B (2), 4 (3), 5 (3), 11A (1), 14 (2).

Physics 1 (3), 2 (2), 4 (2), 5 (2), 6 (2), 10 (3), 11A (1), 15 (2).

Chemistry 1 (3), 2 (3), 3 (2), 4 (3), 5 (3), 7 (3), 16 (1 1-2).

Zoology 1 (3), 2 (3), 3 (3).

Botany 1 (3), 2 (3), 3 (3).

Geology 1 (3), 2 (3), 3 (3), 4 (3), 5 (3), 8 (2), 13 (1 1-2).

The selection made must in each case be submitted to Professor Patterson for approval.

Senior Year

ELECTIVE STUDIES amounting to fifteen hours a week, subject to the condition stated above for the Junior Year. In addition to the courses named for Junior Year the following courses are also open to Seniors:

A.

English 7 (2), 11 (2), 12 (2).

Greek 17 (1).

Latin 14 (1).

B.

History 10 (2).

Economics 2a(2), 3 (2).

Education 10 (1), 11 (1).

Law (3).

C.

Mathematics 6 (3), 7 (3), 7A (3), 8 (3), 10 (4), 11B (1), 13 (2), 16 (2).

Physics 11 (4), 12B (1), 13B (1), 14 (3).

Chemistry 5A (2), 6 (1), 7A (2), 7B (2), 8 (5), 17 (3).

Geology 6 (3), 7 (3).

Anatomy 1a(3).

Physiology 1 (1 1-2).

The selection made must in each case be submitted to the Dean of the College of Liberal Arts for approval.

SPECIAL COURSES

Elective studies may be selected by students who are unable to complete a course leading to the degree. Students intending to pursue these elective studies must prove their qualifications according to the regulations on page 26. After satisfying these entrance requirements, they may elect such studies as they are qualified to pursue.

Special Course for Students Intending to Teach

FIRST YEAR: English 1 (3), Mathematics 1 (4), History 1 (3), Education 1 and 2 (3); one study from the following group: Latin 1 (4), Greek A (4), Greek 1 (4), French A (3) French 1 (3), German A (3), German 1 (3).

SECOND YEAR: English 2 (3), Physics A (3) or Chemistry 1 (3), Education 3 and 4 (3), Education 5 and 6 (2); electives amounting to a total of six hours from the following group: German, French, Greek, Latin, Mathematics, Geology, Physiology, History.

A certificate will be granted upon the completion of this course.

Special Course Preparatory to Medicine

English 1 (3), German 1 (3), Zoology 1 (3), Physics A (3), Chemistry 1 (3), Chemistry 3 (2).

The prerequisites for this course are the requirements of the ordinary high school course which would admit a student regularly to the University. (See page 26).

COURSES OF INSTRUCTION

DEPARTMENT OF BOTANY

WILLIAM CHAMBERS COKER, Ph.D., *Professor of Botany.*

JOHN ARCHIBALD MCKAY, *Assistant in Botany.*

Professor COKER and Mr. MCKAY.

1. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. Sophomore, Junior and Senior elective. *Both terms, three hours.*
2. Physiology: a general course in plant physiology; lectures with laboratory and field experiments. Junior and Senior elective. *Both terms, three hours.*
3. Special Morphology of the Algae and Fungi, with attention to the culture of lower fungi, and the identification of mushrooms; lectures with laboratory and field work. Junior and Senior elective. *Both terms, three hours.*

DEPARTMENT OF CHEMISTRY

CHARLES HOLMES HERTY, Ph.D., *Smith Professor of General and Industrial Chemistry.*

FRANCIS PRESTON VENABLE, Ph.D., D.Sc., LL.D., *Lecturer on the History of Chemistry.*

*ALVIN SAWYER WHEELER, Ph.D., *Associate Professor of Organic Chemistry.*

ROBERT ANDERSON HALL, Ph.D., *Associate Professor of Organic Chemistry.*

*Absent on leave, 1910-1911.

JAMES MUNSHIE BELL, Ph.D., *Associate Professor of Physical Chemistry.*

HAMPDEN HILL, S.B., *Instructor in Chemistry.*

CHARLES SCOTT VENABLE, A.B., *Fellow in Chemistry.*

ROBERT LEE HUNTER, *Assistant in Chemistry.*

WILLIAM LEWIS JEFFRIES, A.B., *Assistant in Chemistry.*

THOMAS PALMER NASH, JR., A.B., *Assistant in Chemistry.*

WILLIAM AUGUSTUS RUDISILL, A.B., *Assistant in Chemistry.*

Professor HERTY and Mr. HILL.

1. General Descriptive Chemistry. A study of the elements and their compounds, including an introduction to Organic Chemistry; lectures with laboratory work. Required of Sophomores in Group 3, elective in Groups 1 and 2. *Both terms, three hours.*
Laboratory fee, \$1.25 a term

Professor HERTY.

2. Technical Chemistry. (a) Industrial and Agricultural Chemistry: glass-making, acids, alkalies, phosphates, fertilizers, foods, clothing, hygiene, etc (b) Metallurgy: mining, treatment of ores, smelting, chlorination, fuel, building materials, etc. Junior and Senior elective; prerequisite, Chemistry 1. *Both terms, three hours.*

Associate Professor HALL and Messrs. NASH and HUNTER.

3. Qualitative Analysis: laboratory work with lectures. May be taken with Chemistry 1. Junior and Senior elective. *Both terms, two hours.*
Laboratory fee, \$5.00 a term.

Associate Professor BELL.

4. Quantitative Analysis and Assaying; laboratory work, lectures, and stoichiometric exercises; a grounding in analytical methods. Junior and Senior elective; prerequisite, Chemistry 1 and 3. *Both terms, three hours.*
Laboratory fee, \$5.00 a term.

Associate Professor HALL.

5. Organic Chemistry. Junior and Senior elective; prerequisite, Chemistry 1 and 3. *Both terms, three hours.*
Laboratory fee, \$4.00 a term.
- 5A. Organic Chemistry; special preparations. Senior elective.
Both terms, laboratory, two hours.
Laboratory fee, \$6.00 a term.

President VENABLE.

6. The History of Chemistry. Senior elective; prerequisite, Chemistry 1, 3, 4, 5. *Spring term, two hours.*

Associate Professor BELL.

7. Elementary Physical Chemistry. Junior and Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.*
Laboratory fee, \$2.00 a term.
- 7A. Physical Chemistry; lectures and text-books, with laboratory work. Senior elective; prerequisite, Chemistry 7. *Both terms, two hours.*
- 7B. Electro-Chemistry: theory and application of electricity to chemical processes. Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, two hours.*

Professor HERTY.

8. Quantitative Analysis; laboratory work; gas analysis and extension of course 4 in technical lines; bacteriological examination of water (with Professor MacNider); research. Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, five hours.*
Laboratory fee, \$10.00 a term.
16. Inorganic Chemistry. A detailed study of the reactions of the elements and their compounds. Lectures and text-book. Junior and Senior elective; prerequisite, Chemistry 1, 3, and 4. *Spring term, three hours.*
17. Quantitative Analysis. Laboratory work. Extension of course 4 in technical lines. Senior elective; prerequisite,

Chemistry 1, 3, and 4. *Both terms, three hours.*

Laboratory fee, \$5.00 a term.

The Journal Club meets fortnightly. The current journals, American, English, German, and French, both the purely scientific and the technical, are reviewed by the students and instructors.

Attendance is expected of students in all courses except 1 and 3.

For courses 4A and 10, see School of Medicine and School of Pharmacy.

For courses 11, 12, 13, 14, and 15, see Graduate School.

DEPARTMENT OF ECONOMICS AND FINANCE

CHARLES LEE RAPER, Ph.D., *Professor of Economics.*

1. General Economics: A general study of the principles which are involved in the production, distribution, and consumption of wealth, and the relation of wealth to welfare; a special study of labor, land, capital, business management, and the state, as factors in the production and distribution of wealth. Raper's *Principles of Wealth and Welfare*, and Seligman's *Principles of Economics*. Junior and Senior elective. *Both terms, three hours.*
2. Public Finance: a general study of the principles which are involved in the revenues and expenditures of the state, and of the relation of the state to the industries of its citizens; a special study of taxation and the tariff. Lectures, readings, and reports. Adam's *The Science of Finance*. Senior elective. *Both terms, two hours.*
Given in alternate years; to be omitted in 1911-1912.
3. Economic Institutions and Thought in England and the United States: a general study, largely from the historical point of view, of the economic institutions and the systems of economic thought in England and the United States; a special study of socialism. Lectures, readings, and reports. Cheyney's *Industrial and Social History of England*, Brooks's *The Social Unrest*, Spargo's *Socialism*, and the *Communist Manifesto* (Marx and Engels). Senior elective. *Both terms, two hours.*

4. **Money, Banking, and Insurance.** (a) A general study of the principles, functions, and forms of money and banking; a special study of current monetary problems. Lectures, readings, and reports. Kinley's *Money*, Dunbar's *Theory and History of Banking*, (2nd Ed), and Jones's *Economic Crises*. (b) A general study of the principles and methods of insurance; a special study of the regulation of insurance by the State. Lectures and readings. Junior and Senior elective. *Both terms, three hours.*
5. **Transportation and Labor:** (a) A general study of the principles and forms of the modern system of transportation; a special study of the American railway system and its position in American life; a special study of the relation of the State to railway management. Lectures, readings, and reports. Johnson's *American Railway Transportation*. (b) Labor as an agent in the production of wealth; wages; some wage problems, as, for instance, woman and child labor, immigration, sweating system, and poverty; some of the solutions of these problems, as, for instance, strikes, boycotts, trades unions, conciliation and arbitration, profit-sharing, co-operation, industrial education and the factory acts; the relation of the State to wage problems. Adams and Sumner's *Labor Problems*. Junior and Senior elective. *Both terms, two hours.*

Given in alternate years; to be given in 1911-1912.

A certificate is granted to a student who has completed, with credit, courses 1-5.

DEPARTMENT OF EDUCATION

MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy.*

NATHAN WILSON WALKER, A. B., *Professor of Secondary Education.*

HARRY WOODBURN CHASE, Ph.D., *Professor of the Philosophy of Education.*

LOUIS ROUND WILSON, Ph.D., *Associate Professor of Library Administration.*

Professor NOBLE.

1. The Science of Teaching; the practical application of scientific principles to the teaching of elementary branches; a brief study of modern educational theories; preparation of model lessons according to pedagogical principles; lectures, text-books, and theses. Junior and Senior elective, open only to those who intend to teach (not counted for a degree unless Pedagogy 2 is also taken.) *Fall term, three hours.*
2. The Art of Teaching: a careful study of the principles and methods involved in successfully teaching those studies usually taught in the best public and private elementary schools; lectures, text-books, and theses. Junior and Senior elective, open only to those who intend to teach; prerequisite, Pedagogy 1. *Spring term, three hours.*
3. Science and Practice of Education: a study of modern education from the view-point of both teacher and citizen; the development and arrangement of a High School course of study; lectures, text-books, parallel readings, theses. Junior and Senior elective. *Spring term, three hours.*
4. The General History of Education: the development of educational ideals in the past; the effect of the pedagogical doctrines of the great educators of the past upon modern educational systems; lectures, text-book, parallel readings, criticisms, theses. Junior and Senior elective. *Spring term, three hours.*

Professor WALKER.

5. High School Organization. A study of the organization of the American high school with special attention to its curricula and methods. Text-books, lectures, and assigned readings. Brown's *The American High School* and DeGarmo's *Principles of Secondary Education*. Open to teachers. *Fall term, two hours.*
6. High School Administration. A study of the principles and problems of American high school administration. Text-books, lectures, and assigned readings. Hollister's *High*

School Administration. Open to teachers; prerequisite, Education 5. *Spring term, two hours.*

Professor CHASE.

7. **Educational Psychology.** The application of modern psychological theory and discovery to education. Lectures, readings, text. Junior and Senior elective. *Full term, three hours.*
 8. **Experimental Pedagogy.** A more detailed study of the experimental work which is contributing to the solution of educational problems. Lectures, readings. Junior and Senior elective; prerequisite, Education 7. *Spring term, three hours.*
 9. **Educational Classics.** A study at first hand of the works of typical great educators, with attention to the social and historical background. Junior and Senior elective. Readings, lectures. *Both terms, three hours.*
 10. **Child Study.** The development of the child from birth to adolescence and the significance of child study for education. Lectures, readings, text. Senior elective; prerequisite, Education 1 and 2, or 3, or 7, or an equivalent. *Full term, two hours.*
 11. **Adolescence.** A continuation of the preceding course, dealing with the adolescent changes and their significance. Lectures and text. Senior elective; prerequisite, Education 10. *Spring term, two hours.*
- A certificate is granted to a student who has completed with credit courses 1 to 4 inclusive, together with either courses 5 and 6 or courses 10 and 11.

Library Administration

Associate Professor WILSON.

1. **Library Administration:** a study of library administration, bibliography, book selection, reading courses, debate references, indexing, and technical library methods; practice in the University library. This course is open to Library Fellows and Assistants; upon the approval of the Execu-

tive Committee, it may also be counted for the degree by students preparing for library positions. *Both terms, two hours.*

DEPARTMENT OF ENGLISH

THOMAS HUME, D.D., LL.D., *Professor Emeritus of English Literature.*

EDWARD KIDDER GRAHAM, A.M., *Professor of English.*

EDWIN MIMS, Ph.D., *Professor of English.*

JAMES FINCH ROYSTER, Ph.D., *Professor of English.*

GEORGE MCFARLAND MCKIE, A.M., *Associate Professor of Public Speaking.*

JOHN MANNING BOOKER, A.B., *Associate Professor of English.*

GEORGE MARK SNEATH, A.M., *Instructor in English.*

Professor MIMS, Associate Professor BOOKER and Mr. SNEATH.

1. Types of Literature: the short story, the novel, the essay; the lyric, the epic, the ballad, and the drama. Practical rhetoric and theme writing during the second term. This course lays the foundation for the student's later studies in both literature and composition. Required of Freshmen. *Both terms, three hours.*

Professor ROYSTER, Associate Professor BOOKER, and Mr. SNEATH.

2. First term: Rhetoric and Composition; preparation and criticism of daily and weekly themes. Second term; History of English Literature. Reports on assigned readings. Required of Sophomores. *Both terms, three hours.*

Professor GRAHAM.

3. Advanced Composition. Constant practice throughout the year in the various forms of prose discourse. Lectures and discussions. Junior and Senior elective; prerequisite, a grade of 80 on English 2. *Both terms, three hours.*
4. Essays and Orations. Lectures; analysis of representative essays and orations; construction of essays and orations. Junior and Senior elective. *Both terms, three hours.*

5. Shakespeare. First term: The Rise and Development of the Drama in England, from the Miracle Plays through Marlowe. Second term: A detailed study of four plays of Shakespeare and a rapid reading of the remainder. Junior and Senior elective. *Both terms, three hours.*

Professor ROYSER.

6. Introductory course in Old English and Middle English. In the first term a careful study is made of Old English grammar and syntax; a large amount of easy Old English prose is read. Text: Bright's *Anglo-Saxon Reader*. In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. Texts: Greenough's *Selections from Chaucer*; Emerson's *Middle English Reader*. The primary aim of the whole course is to acquaint the student with the main facts of the beginning and development of the English language. The language of the older periods is considered in its relation to present day English; many points of confusion in Modern English, unexplained by the rules of logical grammar, are made clear. Junior and Senior elective. *Both terms, three hours.*

The attention of students electing this course is called to course 13 in the Latin Department.

7. Advanced course in Old English and Middle English. The work of the first term continues the study of Old English grammar, particularly in its relation to that of the other Indo-European languages, and takes up the reading of Old English poetry. Texts: Wyatt's *Beowulf*; Blackburn's *Exodus and Daniel*. A study of Chaucer's minor poems will be the basis of the work of the second term, 1912. Senior elective; prerequisite, English 6 or its equivalent. *Both terms, two hours.*
8. An Introduction to the Study of the Science of Language. The student will be shown the aims and methods of modern philological study, the larger results of linguistic science and

the relation of these to the general history of civilization. No special linguistic training is necessary for entrance. Junior and Senior elective. *Both terms, two hours.*

9. The Contemporary Drama. In this course the condition of the stage and the character of the plays in England from 1840 to the present day will be sketched. The lectures will deal particularly with the imitation and adaptation of French plays, the attempts to put into dramatic form problems of contemporary life and manners, the sociological and artistic tendencies of the modern drama, the manifestations of decadence, the influence of Ibsen, the recent German drama, the literary drama, and the present day outlook. Representative modern dramas will be assigned for reading. Junior and Senior elective. *Both terms, two hours.*

Professor MIMS.

- 10A. American Literature. Special attention to the literature of New England (1825-1892) and to Southern literature since the Civil War. Junior and Senior elective. *Fall term, three hours.*
- 10B. English Fiction in the Nineteenth Century. The historical development of the novel and the short story, with special attention to George Eliot, Stevenson, and Kipling. Junior and Senior elective. *Spring term, three hours.*
11. Seventeenth Century Literature. In the main, a comprehensive study of the writings of John Milton, considered in relation to the literature and history of the Civil War. A graduate course open to Seniors. *Both terms, two hours.*
This course alternates with course 12.
12. Eighteenth Century Literature. A study of the development of English prose, of the poetry of the Classical School, and of the beginnings of the Romantic Movement. A graduate course open to Seniors. *Both terms, two hours.*
This course alternates with course 11; to be omitted in 1911-1912.
14. Nineteenth Century English Poetry. Emphasis in the first

term on Wordsworth, Byron, and Shelley, and in the second on Matthew Arnold, Tennyson, and Browning. Junior and Senior elective. *Both terms, three hours.*

Professor ROYSTER.

16. Journalism. Extensive practice in the forms of journalistic composition. Junior and Senior elective. *Both terms, two hours.*

A certificate is granted to a student who has completed with an average grade of not less than 85 courses 1, 2, 6, and six hours of additional elective work.

Public Speaking

Associate Professor McKIE.

1. A course in declamation and in simple extempore speaking. The aim of this course is to correct faults in speech and to form the habit of simple, clear, direct speaking. Required of Freshmen. *Both terms, one hour.*
2. The Forms of Public Address: the argumentative speech, the commemorative address, the after dinner speech, the eulogy; extempore speaking. Open to Sophomores who have attained a grade of 3 in English 1, and to Juniors and Seniors. *Both terms, two hours.*
3. Debate: the preparation of briefs and forensics, and practice in oral debate. Junior and Senior elective. *Both terms, two hours.*

DEPARTMENT OF GEOLOGY AND MINERALOGY

COLLIER COBB, A.M., *Professor of Geology and Mineralogy.*

JOSKPH HYDE PRATT, Ph.D., *State Geologist and Professor of Economic Geology.*

WILLIAM HENRY FRY, S.B., *Instructor in Geology.*

CHARLES ALEXANDER VOGLER, *Assistant in Geology.*

Professor COBB and Mr. VOGLER.

1. Elementary Geology; lectures with field work; laboratory work on the common minerals and rocks. Sophomore,

Junior, and Senior elective. *Both terms, three hours.*
Laboratory fee, \$3.00 for the spring term.

Mr. FRY.

2. Mineralogy; lectures with laboratory and field work; Crosby's *Tables* and Dana's *Text-Book of Mineralogy*. Junior and Senior elective; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.*
Laboratory fee, \$5.00 a term.

Professor COBB.

3. General Critical Geology; lectures with field work; laboratory work on rocks and fossils; theses. Junior and Senior elective. *Both terms, three hours.*
Laboratory fee, \$3.00 for the fall term, \$5.00 for the spring term.

Mr. FRY.

4. Economic Geology; ore deposits and minerals; lectures with laboratory and field work. Junior and Senior elective; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours,*
Laboratory fee, \$1.00 a term.
5. Petrography; lectures, laboratory work, and theses. Junior and Senior elective; prerequisite, Geology 1 and 2. *Both terms, three hours.*

Professor COBB.

6. Advanced field work and special research in Geology or Geography; problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Senior elective; prerequisite, two courses in Geology. *Both terms, three hours.*
7. Advanced course in Physiography. Senior elective; prerequisite, Geology 1 and Zoology 1 or Botany 1. *Both terms, three hours.*
Laboratory fee, \$2.00 a term.
8. Origin and Nature of Soils; field work, laboratory work, and theses. Students in this course are expected to keep Sat-

urday open for field work. Junior and Senior elective; prerequisite, Geology 1 and 2, Chemistry 1 and 3, Botany 1. *Both terms, two hours.*

Laboratory fee, \$3.00 a term.

- 8A. Soils and Stones for Road Making. Field work, laboratory work. Prerequisite, Geology 1. *Both terms, one hour.*
Laboratory fee, \$1.00 a term.

Professor PRATT.

11. Mineral and Ore Deposits; lectures supplemented by laboratory and field work. Prerequisite, Geology 1 and 2 and Chemistry 3. *Twenty-four lectures (Spring term).*
12. Principles and Practice in General Mining; lectures supplemented by visits to different minning regions.

Professor COBB.

13. Advanced Geological Field Work and Special Research; studies in the Deep River and Wadesboro areas of the Triassic rocks; a brief examination of the Potomac, Eocene, Lafayette, and Columbia deposits. This course is given in the summer. It covers five weeks, of which one is spent in Chapel Hill with daily meetings, the remaining four weeks are devoted to field work. Students who take this course will be expected to devote all their time to it. Junior and Senior elective. *One term, three hours.*

The Geological Seminary meets fortnightly for review and discussion of current geological literature, and for the presentation of original papers.

For course 9, see Graduate School.

DEPARTMENT OF GERMANIC LANGUAGES

*WALTER DALLAM TOY, M.A., *Professor of the Germanic Languages and Literatures.*

GEORGE BURRIDGE VILES, Ph.D., *Professor of German.*

PALMER COBB, Ph. D., *Associate Professor of German and Acting Head of the Department.*

CYRUS DUNLAP HOGUE, A.B., *Assistant in German.*

*Absent on leave, 1910-1911.

Professor VILES, Associate Professor COBB, and Mr. HOGUE.

- A. Elementary Course: grammar; written and oral exercises; translation; sight reading. This course may be counted for entrance only. *Both terms, three hours.*

Professor VILES and Associate Professor COBB.

1. Translation, sight reading, composition, grammar. Required of Freshmen in Group 3, elective in Group 2; Sophomore elective. *Both terms, three hours.*

Professor VILES.

- 2A. Schiller: Die Jungfrau von Orleans, Wallenstein's Tod; Goethe; Egmont, Iphigenie auf Tauris; Lessing: Minna von Barnhelm; lectures on German Literature. Sophomore elective in group 2; Junior and Senior elective; prerequisite, German 1. *Both terms, three hours.*

Associate Professor COBB.

- 2B. History of German Literature in the nineteenth century after 1832; rapid reading from representative authors of the nineteenth century, with parallel lectures. Junior and Senior elective; prerequisite, German 1. *Both terms, three hours.*

Professor VILES.

3. History of German Literature; lectures with parallel reading and written reports. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, three hours.*

Associate Professor COBB.

4. Middle High German: Paul's *Mittelhochdeutsche Grammatik*; Bachmann's *Mittelhochdeutsches Lesebuch*; translation into New High German. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, three hours.*
This course alternates with course 5.

5. Old High German: Braune's *Althochdeutsche Grammatik*; Braune's *Althochdeutsches Lesebuch*. Junior and Senior

elective; prerequisite, German 2A or 2B. *Both terms, three hours.*

This course alternates with course 4; to be obmitted in 1911-1912.

Professor VILES.

6. Gothic; Braune's Gotische Grammatik; selected parts of Paul's Grundriss der Germanischen Philologie. Introduction to Germanic Philology. Junior and Senior elective, prerequisite, German 2A, or 2B, or 3. *Both terms, three hours.*

7. Goethe: Goetz von Berlichingen, Tasso, Dichtung und Wahrheit, Hermann und Dorothea, Faust. Junior and Senior elective; prerequisite, German 2A, or 2B, or 3. *Both terms, three hours.*

This course may be elected only after consultation with the instructor; to be obmitted in 1911-1912.

A certificate is granted to a student who has completed with credit any four courses exclusive of course A.

DEPARTMENT OF GREEK

CHARLES WESLEY BAIN, M. A., *Professor of the Greek Language and Literature.*

WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*

Associate Professor BERNARD.

- A. A course for students who have had no opportunity of studying Greek in the preparatory schools. This course may be counted for entrance only. Moss's First Greek Reader; Babbitt's Greek Grammar; Xenophon's Anabasis. *Both terms, three hours.*

Professor BAIN and Associate Professor BERNARD.

1. Lysias, selected speeches; review of important grammatical principles; Homer's Iliad, books I., II., and III., and Odyssey, book VI.; reading at sight. Required of Freshmen in Group 1, elective in Group 2. *Both terms, four hours.*

Professor BAIN.

2. Lysias, Selected Speeches; Plato, Apology and Crito; Euripides, Medea; reading at sight; lectures on Greek Literature. Sophomore elective in Groups 1 and 2. *Both terms, three hours.*
3. Prose Composition, elementary course, intended as supplementary to Greek 1. Open to students who are taking Greek 1 or 2. *Both terms, one hour.*
4. Lectures on Old Greek Life; History of Greek Art, text-book and lectures. Junior and Senior elective. *Both terms, two hours.*
5. Modern Greek; Rangabe's Handbook; Bikelas' Stories; Newspapers. Junior and Senior elective. *Spring term, two hours.*

Associate Professor BERNARD.

6. Homer, rapid reading of the entire Odyssey. Junior and Senior elective. *Both terms, two hours.*

Professor BAIN.

7. Greek Drama: Euripides, Iphigenia among the Taurians; Sophocles, Oedipus Tyrannus; Aeschylus, Agamemnon; Aristophanes, Clouds; Aristotle, Poetics. Junior and Senior elective. *Both terms, three hours.*
9. Demosthenes, three Philippics. Junior and Senior elective. *Spring term, two hours.*
10. Thucydides, Book I. Junior and Senior elective. *Fall term, three hours.*

Associate Professor BERNARD.

- 14A. The Greek New Testament: The Acts of the Apostles, study of grammar and diction, comparison with English versions. Junior and Senior elective; prerequisite, Greek 2. *Fall term, two hours.*
- 14B. The Greek New Testament; The Gospels, selections from the Epistles and Revelation; the principles of textual criti-

cism, sources of the Greek text with history of the text and versions. Junior and Senior elective; prerequisite, Greek 14A. *Spring term, two hours.*

15. Classical Archaeology. History and principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours.*
This course is the same as Latin 15.
16. Classical Archaeology. Ancient Rome and Athens: a brief survey of the topography and monuments of the two cities. Lectures with prescribed reading. Junior and Senior elective, open also to Sophomores taking Greek 2 and Latin 2. *Fall term, two hours.*
This course is the same as Latin 16.

Professor BAIN.

17. Greek Epigraphy and Palaeography; a brief introduction to the study of Greek inscriptions and manuscripts. Lectures and reports. Senior elective. *Spring term, two hours.*
The attention of students electing this course is called to course 14 in the Latin Department.

Professor T. J. WILSON, JR.

19. Indo-European Philology: introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palaeontology. Junior and Senior elective. *Both terms, two hours.*
The attention of students electing this course is called to courses 6 and 8 in the Department of English and to course 6 in the Department of Germanic Languages. The course is the same as Latin 13.
For courses 8, 11, 12, and 18, see Graduate School.
A certificate is granted to a student who has completed with credit courses 1, 2, and four hours of elective work.

DEPARTMENT OF HISTORY

KEMP PLUMMER BATTLE, LL.D., *Professor Emeritus of History.*

JOSEPH GREGOIRE DE ROULHAC HAMILTON, Ph.D., *Alumni Professor of History.*

HENRY MCGILBERT WAGSTAFF, Ph.D., *Professor of History.*

CHARLES EUGENE MCINTOSH, *Assistant in History.*

Professors HAMILTON and WAGSTAFF, and Mr. McINTOSH.

1. American History: a general course covering the social, political, and economic development of the United States; text-books, lectures, and readings. Required of Freshmen in groups 2 and 3. *Both terms, three hours.*

Professor WAGSTAFF.

2. Mediaeval European History: a general course covering the period, 400-1648; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.*
To be omitted in 1911-1912.
3. English History: a general course; text-books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.*
4. Modern European History: a general course covering the period 1648-1900; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.*

Professor HAMILTON.

5. The English Constitution and Government: a careful study of English constitutional development and the present government of the English people. Lectures, text-books, and readings. Junior and Senior elective. *Both terms, three hours.*
This course alternates with course 7; to be omitted in 1911-1912.
6. North Carolina History: a general study of the constitutional, political, and economic development of the State in the period since the Revolution; lectures, readings, and reports. Junior and Senior elective. *Spring term, two hours.*
7. The American Constitution and Government: a careful study of the constitution of the United States by means of cases; followed by a study of the political customs and institutions of the American people. Text-book, lectures, and readings. Junior and Senior elective. *Both terms, three hours.*
This course alternates with course 5,

Professor WAGSTAFF.

8. **Classical History:** a general course dealing largely with the Greeks and Romans; text-books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.*
9. **Spanish-American History, 1492-1909.** The course especially emphasizes the history of the leading Spanish-American countries from their revolutionary period to the present; lectures, text-books, and readings. Junior and Senior elective, open also to Sophomores. *Both terms, two hours.*

Professor HAMILTON.

10. **Civil War and Reconstruction:** a detailed study of the constitutional, political, and economic phases of the period of Civil War and Reconstruction; lectures, readings, and reports. Senior elective; prerequisite History 1 or History 11. *Both terms, two hours.*
11. **The Middle Period:** a careful study of the leading movements in the United States from the adoption of the Constitution to 1850; lectures, readings, and reports. Junior and Senior elective. *Fall term, two hours.*
- 12A. **The Protestant Revolt:** a detailed study of the causes, progress, and results of the Protestant movement, with special attention to the lives, doctrines, and influence of Luther and Calvin; text-books, lectures, and readings. Junior and Senior elective. *Fall term, two hours.*
- 12B. **The French Revolution:** a detailed study of the causes, progress, and results of the Revolution; text-books, lectures, and readings. Junior and Senior elective. *Spring term, two hours.*

A certificate is granted to a student who has completed with credit fifteen hours in History.

For courses 13 and 14 see Graduate School,

DEPARTMENT OF LATIN

GEORGE HOWE, Ph.D., *Professor of the Latin Language and Literature.*

THOMAS JAMES WILSON, JR., Ph.D., *Associate Professor of Latin.*

GEORGE KENNETH GRANT HENRY, A. M., *Instructor in Latin.*

EDGAR WILLIS TURLINGTON, *Assistant in Latin.*

Professor HOWE and Messrs HENRY and TURLINGTON.

1. Cicero, *De Senectute* and *De Amicitia*; Livy, Book I.; Horace, *Odes* and *Epodes*. Required of Freshmen in Group 1, elective in Group 2. *Both terms, four hours.*

Associate Professor WILSON and Mr. HENRY.

2. Plautus, *Menaechmi*; Terence, *Phormio*; Horace, *Satires* and *Epistles*; Tacitus, *Agricola* and *Germania*. Sophomore elective in Groups 1 and 2. *Both terms, three hours.*

Associate Professor WILSON.

3. Latin Prose Composition, based on Cicero and Livy; intended as supplementary to Latin 1. Open to students who are taking Latin 1 or 2. *Both terms, one hour.*
4. Latin Comedy: reading of selected plays of Plautus and Terence, with a study of the historical development of ancient comedy. Junior and Senior elective. *Both terms, two hours.*
This course alternates with course 6.

Professor HOWE.

5. Pliny, selected *Letters*; Juvenal, *Satires*; Martial, selected *Epigrams*; reading with special reference to the private life of the Romans at the close of the first century A. D. Junior and Senior elective. *Both terms, two hours.*
This course alternates with course 9; to be omitted in 1911-1912.

Associate Professor WILSON.

6. Cicero: rapid reading of the philosophical works, *De Officiis* and *Tusculan Disputations*, and of the rhetorical works,

Brutus and De Oratore. Junior and Senior elective. *Both terms, two hours.*

This course alternates with course 4; to be omitted in 1911-1912.

Professor HOWE.

7. Roman Political Institutions; lectures. Junior and Senior elective, open also to Sophomores who are taking Latin 2. *Fall term, two hours.*

This course alternates with course 7A.

- 7A. The Private Life of the Romans; lectures. Junior and Senior elective, open also to Sophomores who are taking Latin 2. *Fall term, two hours.*

This course alternates with course 7; to be omitted in 1911-1912.

8. History of Roman Literature; lectures. Junior and Senior elective, open also to Sophomores who are taking Latin 2. *Spring term, two hours.*

9. Roman elegiac poets; rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives of the elegists; the history of Greek and Roman elegy. Junior and Senior elective. *Both terms, two hours.*

This course alternates with course 5.

Associate Professor WILSON.

10. A course for teachers, embracing pronunciation, prosody, the art of reading Latin, and a classification of moods and tenses. Junior and Senior elective. *Both terms, two hours.*

13. Indo-European Philology: introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palaeontology. Lectures. Junior and Senior elective. *Both terms, two hours.*

The attention of students electing this course is called to courses 6 and 8 in the Department of English and to course 6 in the Department of Germanic Languages. The course is the same as Greek 19.

Professor HOWE.

14. Latin Epigraphy and Palaeography: a brief introduction to

the study of Latin inscriptions and manuscripts. Lectures and reports. Senior elective. *Fall term, two hours.*

The attention of students electing this course is called to course 17 in the Department of Greek.

Associate Professor BERNARD.

15. Classical Archaeology. History and principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours.*
This course is the same as Greek 15.

16. Classical Archaeology. Ancient Rome and Athens: a brief survey of the topography and monuments of the two cities. Lectures with prescribed reading. Junior and Senior elective, open also to Sophomores taking Greek 2 and Latin 2. *Fall term, two hours.*
This course is the same as Greek 16.

For courses 11 and 12, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1, 2, and 3, and six hours of elective work.

DEPARTMENT OF MATHEMATICS

WILLIAM CAIN, C. E., *Professor of Mathematics.*

*ARCHIBALD HENDERSON, Ph.D., *Professor of Pure Mathematics.*

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

GUY ROGER CLEMENTS, A. M., *Professor of Pure Mathematics.*

GEORGE WESTON MITCHELL, *Associate Professor of Drawing.*

THOMAS FELIX HICKERSON, A. M., *Associate Professor of Mathematics.*

JONAS MACAULAY COSTNER, JR., A. B., *Instructor in Mathematics.*

THEOPHILUS RANDOLPH EAGLES, JR., A. B., *Instructor in Mathematics.*

JOHN WAYNE LASLEY, JR., A. B., *Fellow in Mathematics.*

Professor CLEMENTS, and Messrs. HICKERSON, COSTNER, and EAGLES.

1. Algebra, from Quadratics through Theory of Equations (Fine's

*Absent on leave, 1910-1911.

College Algebra); Plane and Spherical Trigonometry and Logarithms. Required of Freshmen. *Both terms, four hours.*

Professors CAIN and CLEMENTS.

2. Brief Course in Conic Sections (Smith and Gale's *Analytic Geometry*); Elementary Course in Differential and Integral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomores in Group 3, elective in Groups 1 and 2. *Both terms, three hours.*

Professor STACY and Associate Professor MITCHELL.

3. Surveying (Raymond) and Higher Surveying, Drawing. Junior and Senior elective; prerequisite, Mathematics 1. *Both terms, three hours.*

Professor CLEMENTS.

- 3A. (a) Higher Algebra. (b) Elementary Mechanics (Loney.) Junior and Senior elective; prerequisite, Mathematics 1. *Both terms, three hours.*

Associate Professor MITCHELL.

- 3B. Graphics; Descriptive Geometry (Church); Shades, Shadows, and Perspective (Mitchell); lectures and plates. Junior and Senior elective. *Both terms, two hours.*
- 3C. Stereotomy. A course in the application of Descriptive Geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers and culverts. A study of warped surfaces and drawings for the helicoidal arch. Senior elective; prerequisite, Mathematics 3B. *Spring term, two hours.*

Professor CAIN.

4. Calculus, Analytic Mechanics. Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, three hours.*

Professor CLEMENTS.

5. Theory of Equations (Burnside and Panton). Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, three hours.*

6. Differential Equations (Murray). Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.*

Professor STACY.

7. Road and Railroad Surveying and Engineering. Senior elective; prerequisite, Mathematics 3. *Both terms, two hours.*
- 7A. Hydraulics and Sanitary Engineering. Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.*

Professor CAIN.

8. Mechanics of Materials. Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.*

Associate Professor HICKERSON.

10. Theory of Structures. Senior elective; prerequisite, Mathematics 4. *Both terms, four hours.*

Professor CAIN.

- 11A. Retaining Walls and Dams. Junior elective; prerequisite, Mathematics 2. *Both terms, one hour.*

Associate Professor HICKERSON.

- 11B. Arches. Senior elective; prerequisite, Mathematics 4. *Both terms, one hour.*
13. Design of Structures. Senior elective, may be taken in connection with Mathematics 8 and 10. *Spring term, four hours.*

Professor STACY.

14. Brief Course in Strength of Materials and Stresses and Trusses. Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, two hours.*

Associate Professor HICKERSON.

16. Road Construction and Drainage; Road Location. Prerequisite, Mathematics 3. *Both terms, two hours.*
For additional courses, see Graduate School.

Drawing

Associate Professor MITCHELL.

1. **Freehand and Mechanical Drawing.** (a) Freehand drawing; sketching from dictation, sketching of geometrical figures, sketching from flat copy and from models; application of rules of perspective and light and shade. (b) Lettering: Freehand and mechanical lettering. (c) Mechanical drafting; the use of instruments; geometrical drafting; orthographic projection; elementary working drawings. Text-Books: Anthony's *Mechanical Drawing*; Reinhardt's *Freehand Lettering*. Not counted for the degree. *Both terms, two hours.*
2. **Mechanical and Topographical Drawing:** (a) Mechanism and Valve-gears, including the design of cams, gears, slide valves, etc.; dimensions and working drawings of machines from measurements. (b) Topography: topographical symbols, map drawing in pen and ink and colors. Text-Books: Spooner's *Machine Drawing and Design* and Daniel's *Topographical Drawing*. Not counted for the degree. *Both terms, two hours.*
- 2A. **Mechanical Drawing:** working drawings; tracings; blue-prints; structural work; teaching systems of dimensioning; conventional representations; topographical drawing; conventional signs and plotting. Text-books, Anthony's *Machine Drawing*; Daniel's *Topographical Drawing*. Not counted for the degree. *Both terms, two hours.*
3. **Mechanical Drawing;** machine drafting, work drawings; tracing and blue prints of machine details; assembly drawing; machine design; complete shop and erection drawing with bill of material, in accordance with modern drafting room systems and standards. Not counted for the degree; prerequisite, Drawing 1 and 2. *Both terms, two hours.*
5. **Advanced Freehand Drawing;** charcoal and crayon, pen and ink, brush drawing: lectures. Not counted for the degree. *Both terms, two hours.*

6. Theory of Perspective: lectures and plates. Not counted for the degree. *Both terms, two hours.*
7. Structural Drafting: standard rolled sections, conventional riveting signs, standard connections, methods of framing and detailing structural work, beams, columns, plate girders, roof trusses, bridge details. Not counted for the degree. *Both terms, two hours.*

DEPARTMENT OF PHILOSOPHY

HENRY HORACE WILLIAMS, A.M., B.D., *Professor of Philosophy.*

1. Psychology: lectures, with text-books. Junior and Senior elective. *Both terms, three hours.*
2. Logic: lectures, with text-books; the study of logic in life. Junior and Senior elective. *Both terms, two hours.*
3. Ethics: criticism and discussions. Junior and Senior elective. *Both terms, two hours.*
4. Philosophy: lectures; theses; a study of the forces that shape life. Junior and Senior elective. *Both terms, three hours.*
For course 5, see Graduate School.

DEPARTMENT OF PHYSICS

ANDREW HENRY PATTERSON, A.M., *Professor of Physics.*

PARKER HAYWARD DAGGETT, S.B., *Associate Professor of Electrical Engineering.*

VIVIAN LEROY CHRISLER, A.M., *Instructor in Physics.*

JAMES TALMAGE DOBBINS, *Assistant in Physics.*

ALEXANDER LITTLEJOHN FIELD, *Assistant in Physics.*

GEORGE WESLEY THOMPSON, *Assistant in Physics.*

Mr. CHRISLER.

- A. Elementary Physics: lectures, with text-book, weekly written reviews, laboratory work. May be counted for entrance; open also to students in the Schools of Medicine and Pharmacy. *Both terms, three hours.*
Laboratory fee, 50 cents a term.

Professor PATTERSON.

1. **General Physics:** lectures, with text-books; problems; laboratory work. Required of Sophomores in Group 3; elective in Groups 1 and 2; prerequisite, Mathematics 1. *Both terms, three hours.*
Laboratory fee, \$1.25 a term.
2. **Modern Electrical Theory:** the electron theory, electrolysis, conduction of electricity through gases, electrical nature of matter, radioactivity; lectures and recitations. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.*
4. **Study of Electricity and Magnetism,** with laboratory work; Franklin and MacNutt's *Electricity and Magnetism*. Junior and Senior elective. *Both terms, two hours.*
Laboratory fee, \$2.00 a term.
5. **Descriptive Astronomy:** a general course; lectures and recitations with use of lantern slides; Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.*
6. **Advanced Heat and Thermodynamics.** This study is based on Edser's *Heat for Advanced Students*, Ewing's *The Steam Engine and Other Heat Engines*, and Peabody's *Thermodynamics of the Steam Engine*. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.*

Associate Professor DAGGETT.

10. **The Elements of Electrical Engineering:** an introductory course in the theory and practical operation of direct and alternating current machines and apparatus. Laboratory work one afternoon a week. Junior and Senior elective; prerequisite, a grade of 80 on spring term of Physics 1. *Both terms, three hours.*
Laboratory fee, \$2.00 a term.
11. **Alternating Currents and Alternating Current Machinery.** Lectures and problem work; testing and study of alternating current machines in the laboratory. Senior elec-

- tive; prerequisite, Physics 10 and Mathematics 4. *Both terms, four hours.*
Laboratory fee, \$2.50 a term.
- 12A. Illuminating Engineering: theoretical and practical study of modern light sources, both gas and electric. Junior and Senior elective; prerequisite, Physics 10. *Fall term, two hours.*
- 12B. Electric Power Transmission: a study of the theory, construction, and operation of modern low and high tension circuits for the transmission of power. Senior elective; prerequisite, fall term of Physics 11. *Spring term, two hours.*
- 13B. Electric Design: fundamental principles of the design of electrical machinery. Lectures, calculations, preparation of drawings and specifications. Senior elective; prerequisites, Physics 11 and 14, which may be taken in the same year with 13B. *Spring term, two hours.*
14. Electrical Engineering Laboratory: calibration of instruments, testing of electric lamps and storage batteries; dielectric tests; dynamo and motor characteristics; regulation; efficiency; heating. Senior elective; prerequisite, Physics 10. *Both terms, three hours.*
Laboratory fee, \$5.00 a term.
15. Steam Engineering: boilers, furnaces, steam pumps and other boiler room accessories; steam engines, valves and valve-gears; steam turbines; gas and oil engines, gas producers. Lectures, problems, and laboratory work in the University Power Station. Junior elective; prerequisites, Drawing 1 and Physics 1. *Both terms, two hours.*
Laboratory fee, \$2.50 a term.
For courses for graduate students, see Graduate School.

DEPARTMENT OF ROMANCE LANGUAGES

WILLIAM MORRISON DEY, Ph. D., *Professor of the Romance Languages and Literatures.*

OLIVER TOWLES, A.B., *Associate Professor of Romance Languages.*

JOHN NOTTINGHAM WARE, A.M., *Instructor in the Romance Languages.*

French

Professor DEY, Associate Professor TOWLES, and Mr. WARE.

- A. Elementary Course: grammar; pronunciation taught by the phonetic method; oral and written exercises; translation and reading at sight. This course may be counted for entrance only. *Both terms, three hours.*
1. Continuation of course A. Grammar; composition; reading of modern French literature. Required of Freshmen in Group 3; elective in Group 2; Sophomore elective. *Both terms, three hours.*

Professor DEY.

2. Advanced Course. Studies in reading and writing French, and in pronunciation. French phonetics. Sophomore elective in Group 2; Junior and Senior elective; prerequisite, French 1. *Both terms, three hours.*

Associate Professor TOWLES.

3. French Literature. A general outline of its various periods. Lectures, reading, reports. Junior and Senior elective; prerequisite, French 2. *Both terms, three hours.*
- 4A. French Literature in the Seventeenth Century. Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.*
- This course alternates with course 4B; to be omitted in 1911-1912.

Professor DEY.

- 4B. French Literature in the Eighteenth Century. Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.*
- This course alternates with course 4A.
5. French Literature in the Nineteenth Century. Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.*

Spanish

Professor DEY.

1. Elementary Course: grammar; pronunciation; oral and

written exercises; translation and reading at sight. Junior and Senior elective. *Both terms, three hours.*

2. Second Year Course. Wide reading of representative writers of the eighteenth and nineteenth centuries. Grammar; composition based on selected texts. Junior and Senior elective; prerequisite, Spanish 1. *Both terms, three hours.*
3. Spanish Literature in the Sixteenth and Seventeenth Centuries. Cervantes, Lope de Vega, Calderon. Junior and Senior elective; prerequisite, Spanish 2. *Both terms, two hours.*

Italian

Professor DEY.

1. Elementary course; grammar; pronunciation; oral and written exercises; translation and reading at sight. Junior and Senior elective. *Both terms, three hours.*

DEPARTMENT OF ZOOLOGY

HENRY VAN PETERS WILSON, Ph.D., *Professor of Zoology.*

ORREN WILLIAMS HYMAN, A.B., *Assistant in Zoology.*

LEE FRANKLIN TURLINGTON, A.B., *Assistant in Zoology.*

Professor WILSON and Messrs. HYMAN and TURLINGTON.

1. General Zoology: an introductory course giving an outline of the classification and structure of animals, with consideration of the fundamentals of histology, embryology, and physiology, and some consideration of biological theories; lectures with laboratory work. Sophomore, Junior, and Senior elective, and open to First Year medical students. *Both terms, three hours.*
2. Comparative Anatomy and Embryology of the Vertebrates; study of types of fishes, amphibia, reptiles, birds, mammals; development of the characteristic vertebrate organs in the frog and chick; fundamentals of microscopic technique; laboratory work with occasional lectures. Junior and Senior elective. *Both terms, three hours.*
3. Comparative Anatomy and Embryology of the Invertebrates;

dissection and microscopic study of types of the chief orders, with some consideration of their embryology; laboratory work with occasional lectures. Junior and Senior elective. *Both terms, three hours.*

A certificate is granted to a student who has completed with credit courses 1, 2, and 3, and Botany 1.

SCHOOL OF APPLIED SCIENCE

FACULTY

FRANCIS PRESTON VENABLE, Ph.D., Sc., LL.D., PRESIDENT.

CHARLES HOLMES HERTY, Ph.D., DEAN.

*WALTER DALLAM TOY, M. A., *Professor of the Germanic Languages and Literatures.*

WILLIAM CAIN, C. E., *Professor of Mathematics.*

COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*

JOSEPH HYDE PRATT, Ph.D., *State Geologist and Professor of Economic Geology.*

CHARLES HOLMES HERTY, Ph.D., *Professor of General and Industrial Chemistry.*

EDWARD KIDDER GRAHAM, A. M., *Professor of English.*

*ARCHIBALD HENDERSON, Ph.D., *Professor of Pure Mathematics.*

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

EDWIN MIMS, Ph.D., *Professor of English.*

WILLIAM MORTON DEY, Ph.D., *Professor of the Romance Languages and Literatures.*

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

JAMES FINCH ROYSTER, Ph.D., *Professor of English.*

GEORGE BURRIDGE VILKS, Ph.D., *Professor of Germanic Languages and Literatures,*

GUY ROGER CLEMENTS, A. M., *Professor of Pure Mathematics.*

*ALVIN SAWYER WHEELER, Ph.D., *Associate Professor of Organic Chemistry.*

PALMER COBB, Ph.D., *Associate Professor of German.*

GEORGE WESTON MITCHELL, *Associate Professor of Drawing.*

JOHN MANNING BOOKER, A. B., *Associate Professor of English.*

OLIVER TOWLES, A. B., *Associate Professor of the Romance Languages.*

*Absent on leave 1910-1911.

THOMAS FELIX HICKERSON, A. M., *Associate Professor of Mathematics.*

PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*

ROBERT ANDERSON HALL, Ph.D., *Associate Professor of Organic Chemistry.*

JAMES MUNSH BELL, Ph.D., *Associate Professor of Physical Chemistry.*

JONAS MACAULAY COSTNER, A. B., *Instructor in Mathematics.*

HAMPDEN HILL, S. B., *Instructor in Chemistry.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

THEOPHILUS RANDOLPH EAGLES, JR., A. B., *Instructor in Mathematics.*

WILLIAM HENRY FREY, A. B., *Instructor in Geology.*

GEORGE MARK SNEATH, A. M., *Instructor in English.*

JOHN NOTTINGHAM WARE, A. M., *Instructor in French.*

CHARLES SCOTT VENABLE, A. B., *Fellow in Chemistry.*

JOHN WAYNE LASLEY, JR., A. B., *Fellow in Mathematics.*

ROBERT LEE HUNTER, *Assistant in Chemistry.*

WILLIAM LEWIS JEFFRIES, A. B., *Assistant in Chemistry.*

THOMAS PALMER NASH, JR., *Assistant in Chemistry.*

WILLIAM AUGUSTUS RUDISILL, A. B., *Assistant in Chemistry.*

CHARLES ALEXANDER VOGLER, *Assistant in Geology.*

CYRUS DONLAP HOGUE, A. B., *Assistant in German.*

JAMES TALMAGE DOBBINS, *Assistant in Physics.*

ALEXANDER LITTLEJOHN FEILD, *Assistant in Physics.*

GORDON WESLEY THOMPSON, *Assistant in Physics.*

COURSES LEADING TO THE DEGREE OF BACHELOR OF SCIENCE

In order to be recommended for the degree of Bachelor of Science, the student must have passed satisfactory examinations in all the studies required in one of the following courses outlined in this department, I, II, III, IV, and V. Each course combines instruction in certain sciences and their application to the arts with certain other general studies deemed essential to a liberal education.

These courses are designed to furnish the fundamental instruction and to prepare students to pursue the technical professions to which they lead. The courses leading to the degree are five in number; course IIIA. is a special course.

- I. Chemical Engineering.
- II. Electrical Engineering.
- III. Civil Engineering.
- IIIA. Road Engineering.
- IV. Mining Engineering.
- V. Soil Investigation.

ADMISSION

Candidates for admission to the School of Applied Science must present 14 units for entrance. A complete list of these units and the requirements in each subject will be found on pp. 26-31 of the general catalogue.

The specific requirements are as follows:

English <i>a, b</i>	3. units
History, <i>a</i> or <i>b</i>	2. units
Mathematics, <i>a, b, c</i>	3. units
French <i>a</i> or German <i>a</i>	2. units
Science	1. unit
Elective	3. units

At least 12 units must be offered. A condition of ²/₃ units may be made up after entrance.

I. CHEMICAL ENGINEERING

FRESHMAN YEAR

English 1	(3)*
Mathematics 1	(4)
German 1	(3)
Chemistry 1	(3)
Drawing 1	(2)

*Numerals in parentheses indicate the number of hours a week.

SOPHOMORE YEAR

English 2.....	(3)
Mathematics 2.....	(3)
Chemistry 3, Qualitative Analysis	(2)
Chemistry 4, Quantitative Analysis and Assaying	(3)
Physics 1, General Course	(3)
Drawing 2A.....	(2)

JUNIOR YEAR

Chemistry 16, Inorganic Chemistry, advanced.....	(1½)
Chemistry 2, Technical Chemistry.....	(3)
Chemistry 17, Quantitative Analysis, advanced	(3)
Chemistry 5, Organic Chemistry, advanced.....	(3)
Chemistry 7, Elementary Physical Chemistry.....	(2)
Geology 1.....	(3)
Physics 15, Steam Machinery.....	(1)

SENIOR YEAR

Chemistry 6, Theories of Chemistry	(1)
Chemistry 5A, Organic Chemistry.....	(2)
Select { Chemistry 7A, Physical Chemistry, advanced.....	(3)
one { Chemistry 7B, Electro-Chemistry.....	(2)
Chemistry 8, Advanced Quantitative Analysis and Research...	(5)
Physics 10, Electric Machinery.....	(3)
Physics 6, Thermodynamics (fall term).	(1)
Geology 2, Mineralogy.....	(3)

II. ELECTRICAL ENGINEERING

FRESHMAN YEAR

English 1.....	(3)
Mathematics 1.....	(4)
German 1.....	(3)
Chemistry 1	(3)
Drawing 1	(2)

SOPHOMORE YEAR

English 2	(3)
Mathematics 2.....	(3)
German 2.....	(3)
Physics 1, General Course.....	(3)
Physics 4, Electricity and Magnetism.....	(2)
Chemistry 3, Qualitative Analysis.....	(2)

JUNIOR YEAR

Mathematics 3, Surveying.....	(3)
Mathematics 3B.....	(2)
Mathematics 4.	(3)
Physics 10, Electric Machinery	(3)
Physics 6, Thermodynamics.....	(2)
Physics 15, Steam Machinery.....	(2)
Drawing 3.....	(2)

SENIOR YEAR

Physics 11, Alternating Currents.....	(4)
Physics 12A, Batteries.....	(1)
Physics 12B, Electric Lighting, Wiring, and Distribution.....	(1)
Physics 14, Electric Testing.....	(3)
Chemistry 7B, Electro-Chemistry.....	(2)
Physics 13B, Electrical Design.....	(2)
Mathematics 7A, Hydraulics	(3)

III. CIVIL ENGINEERING

FRESHMAN YEAR

English 1.....	(3)
Mathematics 1.....	(3)
Select { German 1.....	(3)
one { French 1	(3)
Chemistry 1.....	(3)
Drawing 1.....	(2)

SOPHOMORE YEAR

English 2.....	(3)
Mathematics 2.....	(3)
Mathematics 3, Surveying	(2)
Mathematics 3A, spring term	(1½)
Physics 1, General Course	(3)
Geology 1, fall term	(1½)
Drawing 2A	(2)

JUNIOR YEAR

Mathematics 3B, Descriptive Geometry	(2)
Mathematics 4, Calculus and Analytical Mechanics	(3)
Mathematics 7, Road and Railroad Surveying and Engineering	(3)
Mathematics 16, Road Construction, Drainage, and Location	(2)
Mathematics 11A, Retaining Walls and Dams	(1)
English 3A	(1½)
Geology 8A, Soil Surveying and Rocks for Road Construction	(1)
Drawing 2	(2)

SENIOR YEAR

Mathematics 7A, Hydraulics and Sanitary Engineering	(3)
Mathematics 11B, Arches	(1)
Mathematics 8, Mechanics of Materials	(3)
Mathematics 10, Theory of Structures	(4)
Mathematics 13, Design of Structures	(3)
Physics 10, Electrical Machinery	(3)

III. ROAD ENGINEERING

FRESHMAN YEAR

English 1	(3)
Mathematics 1	(4)
Select { German 1	(3)
one { French 1	(3)
Chemistry 1	(3)
Drawing 1	(2)

SOPHOMORE YEAR

English 2	(3)
Mathematics 2	(3)
Mathematics 3.....	(2)
Mathematics 3A, spring term	(1½)
Physics 1.....	(3)
Drawing 2A	(2)
Geology 1, fall term	(1½)

JUNIOR YEAR

Mathematics 4, Calculus and Analytical Mechanics	(3)
Mathematics 7, Road and Railroad Surveying and Engineer- ing	(3)
Mathematics 14, Brief Course in Strength of Materials and Stresses in Trusses	(2)
Mathematics 16, Road Construction, Drainage, and Location	(2)
Road Management, Building Model Roads	(1)
Geology 8A, Soil Surveying and Rocks for Road Construction	(1)
Drawing 2	(2)
English 3A	(1½)

IV. MINING ENGINEERING

FRESHMAN YEAR

English 1	(3)
German 1	(3)
Mathematics 1	(4)
Chemistry 1, General Chemistry	(3)
Drawing 1	(2)

SOPHOMORE YEAR

English 2	(3)
Mathematics 2	(3)
Physics 1, General Course	(3)
Geology 1	(3)
Chemistry 3, Qualitative Analysis	(2)
Drawing 2A	(2)

JUNIOR YEAR

Mathematics 3, Surveying and Leveling	(3)
Mathematics 4, Calculus and Analytical Mechanics	(3)
Physics 6, Thermodynamics	(2)
Geology 2, Mineralogy	(3)
Chemistry 4, Quantitative Analysis	(3)
Geology 11, Ore Deposits	(1)
English 3A	(1½)

SENIOR YEAR

Chemistry 2, Technical Chemistry, Metallurgy	(3)
Geology 4, Economic Geology	(3)
Geology 6, Mine Examinations	(3)
Geology 12, Principles of Mining	(1)
Physics 10, Electric Machinery	(3)
Mathematics 7A, Hydraulics and Sanitary Engineering	(3)
Elective	(1)

V. SOIL INVESTIGATION

FRESHMAN YEAR

English 1	(3)
Mathematics 1	(4)
German 1	(3)
Chemistry 1	(3)
Drawing 1	(2)

SOPHOMORE YEAR

English 2	(3)
Mathematics 3	(2)
Chemistry 3	(2)
Geology 1	(3)
Physics 1	(3)
Drawing 2	(2)

JUNIOR YEAR

Chemistry 4	(3)
Geology 2	(3)
Botany 1	(3)
Chemistry 2	(3)
English 3A	(1½)
French 1	(3)

SENIOR YEAR

Geology 6	(3)
Geology 7	(3)
Geology 8	(2)
Chemistry 8	(5)
Soils of the United States	(1½)
Mapping	(2)

COURSES OF INSTRUCTION

Only those scientific and language courses which are specifically required in the School of Applied Science are repeated here. For complete description of other courses, see page 37.

DEPARTMENT OF CHEMISTRY

Professor HERTY and Mr. HILL.

1. General Descriptive Chemistry: a study of the elements and their compounds, including an introduction to Organic Chemistry; lectures with laboratory work. Required of Freshmen. *Both terms, three hours.*
Laboratory fee, \$1.25 a term.

Professor HERTY.

2. Technical Chemistry. (a) Industrial and Agricultural Chemistry: glass-making, acids, alkalies, phosphates, fertilizers, foods, clothing, hygiene, etc. (b) Metallurgy: mining, treatment of ores, smelting, chlorination, fuel, building materials, etc. Required of Juniors in Courses I and V., and of Seniors in Course IV.; prerequisite, Chemistry 1. *Both terms, three hours.*

Associate Professor HALL and Messrs. NASH and HUNTER.

3. Qualitative Analysis; laboratory work with lectures. May be taken with Chemistry 1. Required of Sophomores in Courses I., II., IV., and V. *Both terms, two hours.*
Laboratory fee, \$5.00 a term.

Associate Professor BELL.

4. Quantitative Analysis and Assaying; laboratory work, lectures, and stoichiometric exercises; a grounding in analytical methods. Required of Sophomores in Course I., and of

Juniors in Courses IV and V.; prerequisite, Chemistry 1 and 3. *Both terms, three hours.*

Laboratory fee, \$5.00 a term.

Associate Professor HALL.

5. Organic Chemistry. Required of Juniors in Course I.; prerequisite, Chemistry 1 and 3. *Both terms, three hours.*

Laboratory fee, \$4.00 a term.

5A. Organic Chemistry; special preparations. Required of Seniors in Course I. *Both terms, laboratory, two hours.*

Laboratory fee, \$6.00 a term.

President VENABLE.

6. The History of Chemistry. Required of Seniors in Course I.; prerequisite, Chemistry 1, 3, 4, 5. *Spring term, two hours.*

Associate Professor BELL.

7. Elementary Physical Chemistry. Required of Juniors in Course I.; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.*

Laboratory fee, \$2.00 a term.

7A. Physical Chemistry; lectures and text-books, with laboratory work. Senior elective in Course I.; prerequisite, Chemistry 7. *Both terms, two hours.*

7B. Electro-Chemistry: theory and application of electricity to chemical processes. Senior elective in Course I.; prerequisite, Chemistry 1, 3, and 4. *Both terms, two hours.*

Professor HERTY.

8. Quantitative Analysis; laboratory work; gas analysis and extension of course 4 in technical lines; bacteriological examination of water (with Professor MacNider); research. Required of Seniors in Course I.; prerequisite, Chemistry 1, 3, and 4. *Both terms, five hours.*

Laboratory fee, \$10.00 a term.

16. **Inorganic Chemistry.** A detailed study of the reactions of the elements and their compounds. Lectures and text-book. Required of Juniors in Course I; prerequisite, Chemistry 1, 3, and 4. *Spring term, three hours.*
17. **Quantitative Analysis.** Laboratory work. Extension of course 4 in technical lines. Required of Juniors in Course I.; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.*

Laboratory fee, \$5.00 a term.

The Journal Club meets fortnightly. The current journals, American, English, German and French, both the purely scientific and the technical, are reviewed by the students and instructors. Attendance is expected of students in all courses except 1 and 3.

DEPARTMENT OF ENGLISH

Professor MIMS, Associate Professor BOOKER and Mr. SNEATH.

1. **Types of literature:** the short story, the novel, the essay; the lyric, the epic, the ballad, and the drama. Practical rhetoric and theme writing during the second term. This course lays the foundation for the student's later studies in both literature and composition. Required of Freshmen. *Both terms, three hours.*

Professor ROYSTER, Associate Professor BOOKER and Mr. SNEATH.

2. **First term:** Rhetoric and Composition; preparation and criticism of daily and weekly themes. **Second term:** History of English Literature. Reports on assigned readings. Required of Sophomores. *Both terms, three hours.*

Professor GRAHAM.

- 3A. **Composition:** a practical course in expository writing designed to teach clearness and good construction. Lectures and theses. Required of Juniors in Courses III., IIIA., IV., V. *Fall term, three hours.*

DEPARTMENT OF GEOLOGY AND MINERALOGY

Professor COBB and Mr. VOGLER.

1. Elementary Geology; lectures with field work; laboratory work on the common minerals and rocks. Required of Sophomores in Courses IV and V., and of Juniors in Course I. *Both terms, three hours.*
Laboratory fee, \$3 00 for the spring term.

Mr. FRY.

2. Mineralogy: lectures with laboratory and field work; Crosby's *Tables* and Dana's *Text-book of Mineralogy*. Required of Juniors in Courses IV and V., and of Seniors in Course I. *Both terms, three hours.*
Laboratory fee, \$5.00 a term.
4. Economic Geology: ore deposits and economic minerals; lectures with laboratory and field work. Required of Seniors in Course IV.; prerequisite, Geology 1 and Chemistry 1 and 3. *Both terms, three hours.*

Professor COBB.

6. Advanced field work and special research in Geology or Geography; problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Courses IV and V.; prerequisite, two courses in Geology. *Both terms, three hours.*
8. Origin and Nature of Soils; field work, laboratory, and theses. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Course V. *Both terms, two hours.*
Laboratory fee, \$2.00 a term.
- 8A. Soils and Stones for Road Making. Field work, laboratory work. Required of Juniors in Courses III. and IIIA.; prerequisite, Geology 1. *Both terms, one hour.*
Laboratory fee, \$1.00 a term.

Professor PRATT.

11. Mineral and Ore Deposits; lectures supplemented by laboratory and field work. Required of Juniors in Course IV. *Twenty-four lectures (spring term).*
12. Principles and Practice in General Mining; lectures supplemented by visits to different mining regions. Required of Seniors in Course IV.
The Geological Seminary meets fortnightly for review and discussion of current geological literature, and for the presentation of original papers.

Course in Soil Investigation**Professor COBB and Mr. HEARNE.**

1. Agricultural Soils: an elementary course covering the nature, origin, and classification of soils, based on G. P. Merrill's *Rocks, Rock Weathering and Soils*, F. H. King's *The Soil*, and reports and bulletins of the Bureau of Soils, U. S. Department of Agriculture; lectures, reading, and field and laboratory work. Open to Juniors and Seniors. *Fall term, three hours.*
2. Soils of the United States: an introductory study of the chief soil provinces, soil series, and soil areas of the United States, with special reference to the soils of North Carolina. Required of Seniors in Course V. *Spring term, two hours.*
3. Soil Mapping: preparation of large scale soil maps of the Chapel Hill region. Required of Seniors in Course V. *Both terms, two hours.*
4. Soil Seminary: study of soil literature with preparation of reports on selected subjects. Open to students engaged in soil work. *One evening each week during February and March.*

DEPARTMENT OF GERMANIC LANGUAGES**Professor VILKS, Associate Professor COBB, and Mr. HOGUE.**

- A. Elementary Course; grammar; written and oral exercises;

translation; sight reading. This course may be counted for entrance only. *Both terms, three hours.*

Professor VILKS and Associate Professor COBB.

1. Translation, sight reading, composition, grammar. Required of Freshmen in Courses I, IV and V.; elective in Courses II, III and IIIA. *Both terms, three hours.*

DEPARTMENT OF MATHEMATICS

Professor CLEMENTS and Messrs. HICKERSON, COSTNER and EAGLES.

1. Algebra, from Quadratics through Theory of Equations (Fine's *College Algebra*); Plane and Spherical Trigonometry and Logarithms. Required of Freshmen. *Both terms, four hours.*

Professors CAIN and CLEMENTS.

2. Co-ordinate Geometry (Fine and Thompson); Elementary course in Differential and Integral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomores. *Both terms, three hours.*

Professor STACY and Associate Professor MITCHELL.

3. (a) Surveying (Raymond), and (b) Higher Surveying. Required of Sophomores in Courses III., IIIA and V., and of Juniors in Courses II and IV. *Both terms, three hours.*

Professor CLEMENTS.

- 3A. (a) Higher Algebra. (b) Elementary Mechanics (Loney). Course 3A (a) is required of Sophomores in Courses III and IIIA. *Both terms, three hours.*

Associate Professor MITCHELL.

- 3B. Graphics: Descriptive Geometry (Church); Shades, Shadows, and Perspective (Mitchell). Required of Juniors in Courses II and III. *Both terms, three hours.*

Professor CAIN.

4. Calculus, Analytic Mechanics. Required of Juniors in Courses II, III, IIIA and IV.; prerequisite, Mathematics 2. *Both terms, three hours.*

Professor CLEMENT.

5. Theory of Equations (Burnside and Panton). Prerequisite, Mathematics 2. *Both terms, three hours.*
6. Differential Equations (Murray). Prerequisite, Mathematics 4. *Both terms, three hours.*

Professor STACY.

7. Railroad Surveying and Railroad Engineering. Required of Juniors in Courses III and IIIA.; prerequisite, Mathematics 3. *Both terms, three hours.*
- 7A. Hydraulics and Sanitary Engineering. Required of Seniors in Courses III and IV.; prerequisite, Mathematics 4. *Both terms, three hours.*

Professor CAIN.

8. Mechanics of Materials. Required of Seniors in Course III.; prerequisite, Mathematics 4. *Both terms, three hours.*

Associate Professor HICKERSON.

10. Theory of Structures. Required of Seniors in Course III.; prerequisite, Mathematics 4. *Both terms, four hours.*

Professor CAIN.

- 11A. Retaining Walls and Dams. Required of Juniors in Course III.; prerequisite, Mathematics 2. *Both terms, one hour.*
- 11B. Arches. Senior elective. Prerequisite, Mathematics 4. *Both terms, one hour.*

Mr. HICKERSON.

13. Design of Structures. Required of Seniors in Course III.;

may be taken in connection with Mathematics 8 and 10.
Both terms, three hours.

Professor STACY.

14. Brief Course in Strength of Materials and Stresses and Trusses.
Required of Juniors in Course IIIA.; prerequisite, Mathematics 4. *Both terms, two hours.*

Associate Professor HICKERSON.

16. Road Construction and Drainage; Road Location. Required of Juniors in Courses III and IIIA. *Both terms, two hours.*

Drawing

1. Freehand and Mechanical Drawing. (a) Freehand drawing: sketching from dictation, sketching of geometrical figures, sketching from flat copy from models; application of rules of perspective and light and shade. (b) Lettering: freehand and mechanical lettering. (c) Mechanical drafting: the use of instruments; geometrical drafting; orthographic projection; elementary working drawings. Text-books: Anthony's *Mechanical Drawing*, Reinhardt's *Free Lettering*. Required of Freshmen. *Both terms, two hours.*
2. Mechanical and Topographical Drawing: (a) Mechanism and valve-gears, including the design of cams, gear-teeth, slide valves, etc; dimensioned working drawings of machines from measurements. (b) Topography: topographical symbols, map drawing in pen and ink and in colors. Text-books: Spooner's *Machine Drawing and Design* and Daniel's *Topographical Drawing*. Required of Sophomores in Course V and of Juniors in Courses II, III, and IIIA. *Both terms, two hours.*
- 2A. Mechanical Drawing: working drawings; tracings; blue-prints; structural work; teaching systems of dimensioning, conventional representations. Topographical drawing; conventional signs and plotting. Text-books: Anthony's

Machine Drawing, Daniel's *Topographical Drawing*. Required of Sophomores in Courses I, III, and IIIA. *Both terms, two hours.*

3. **Mechanical Drawing:** machine drafting, work drawings; tracing and blue prints of machine details; assembly drawing; machine design; complete shop and erection drawing with bill of material, in accordance with modern drafting room systems and standards. Required of Seniors in Course II.; prerequisite, Drawing 1 and 2. *Both terms, two hours.*

DEPARTMENT OF PHYSICS

Professor PATTERSON.

1. **General Physics:** lectures, with text-book; problems; laboratory work. Required of Sophomores; prerequisite, Mathematics 1. *Both terms, three hours.*
Laboratory fee, \$1.25 a term.
4. **Study of Electricity and Magnetism**, with laboratory work; Franklin and MacNutt's *Electricity and Magnetism*. Required of Sophomores in Course II. *Both terms, two hours.*
Laboratory fee, \$2.00 a term.
6. **Advanced Heat and Thermodynamics.** This study is based on Edser's *Heat for Advanced Students*, Ewing's *The Steam Engine and Other Heat Engines*, and Peabody's *Thermodynamics of the Steam Engine*. Required of Juniors in Courses II and IV., and of Seniors in Course I.; prerequisite, Physics 1. *Both terms, two hours.*

Associate Professor DAGGETT.

10. **The Elements of Electrical Engineering:** an introductory course in the theory and practical operation of direct and alternating current machines and apparatus. Laboratory work one afternoon a week. Required of Juniors in Course II, and of Seniors in Courses I, III, and IV; prerequisite, a

grade of 80 on spring term of physics 1. *Both terms, three hours.*

Laboratory fee, \$2.00 a term.

11. Alternating Currents and Alternating Current Machinery. Lectures and problem work; testing and study of alternating current machines in the laboratory. Required of Seniors in Course II; prerequisite, Physics 10 and Mathematics 4. *Both terms, four hours.*

Laboratory fee, \$2.50 a term.

- 12A. Illuminating Engineering: theoretical and practical study of modern light sources, both gas and electric. Required of Seniors in Course II; prerequisite, Physics 10. *Fall term, two hours.*

- 12B. Electric Power Transmission: a study of the theory, construction, and operation of modern low and high tension circuits for the transmission of power. Required of Seniors in Course II; prerequisite, fall term of Physics 11. *Spring term, two hours.*

- 13B. Electric Design: fundamental principles of the design of electrical machinery. Lectures, calculations, preparation of drawings and specifications. Required of Seniors in Course II; prerequisite, Physics 11 and 14, which may be taken in the same year with 13B. *Spring term, two hours.*

14. Electrical Engineering Laboratory: calibration of instruments; testing of electric lamps and storage batteries; dielectric tests; dynamo and motor characteristics; regulation; efficiency; heating. Required of Seniors in Course II.; prerequisite, Physics 10. *Both terms, three hours.*

Laboratory fee, \$5.00 a term.

15. Steam Engineering: boilers, furnaces, steam pumps and other boiler room accessories; steam engines, valves and valve gears; steam turbines, gas and oil engines, gas producers. Lectures, problems and laboratory work in the

University Power Station. Required of Juniors in Course II.; prerequisite, Drawing 1 and Physics 1. *Both terms, two hours.*

Laboratory fee, \$2.50 a term.

DEPARTMENT OF ROMANCE LANGUAGES

Professor DEY, Associate Professor TOWLES, and Mr. WARE.

- A. Elementary Course: grammar; pronunciation taught by the phonetic method; oral and written exercises; translation and reading at sight. This course may be counted for entrance only. *Both terms, three hours.*
1. Continuation of Course A. Grammar; composition; reading of modern French literature. Freshman elective in Courses III and IIIA. *Both terms, three hours.*

THE GRADUATE SCHOOL

COMMITTEE

FRANCIS PRESTON VENABLE, PH. D., LL. D., PRESIDENT.

CHARLES LEE RAPER, PH. D., DEAN.

EDWARD KIDDER GRAHAM, A. M.

GEORGE HOWE, PH. D.

FACULTY

*WALTER DALLAM TOY, M. A., *Professor of the Germanic Languages and Literatures.*

WILLIAM CAIN, C. E., *Professor of Mathematics.*

HENRY HORACE WILLIAMS, A. M., B. D., *Professor of Philosophy.*

HENRY VAN PETERSEN WILSON, PH. D., *Professor of Zoology.*

COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*

MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy.*

GEORGE HOWE, PH. D., *Professor of the Latin Language and Literature.*

CHARLES HOLMES HERTY, PH. D., *Professor of General and Industrial Chemistry.*

CHARLES LEE RAPER, PH. D., *Professor of Economics.*

WILLIAM CHAMBERS COKER, PH. D., *Professor of Botany.*

*ARCHIBALD HENDERSON, PH. D., *Professor of Pure Mathematics.*

JOSEPH GREGOIRE DE ROULHAC HAMILTON, PH. D., *Alumni Professor of History.*

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

HENRY MCGILBERT WAGSTAFF, PH. D., *Professor of History.*

EDWIN MIMS, PH. D., *Professor of English.*

WILLIAM MORTON DEY, PH. D., *Professor of the Romance Languages and Literatures.*

*Absent on leave, 1910-1911.

- MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*
JAMES FINCH ROYSER, PH. D., *Professor of English.*
CHARLES WESLEY BAIN, A. M., *Professor of Greek.*
HARRY WOODBURN CHANE, PH. D., *Professor of the Philosophy of Education.*
GEORGE BURRIDGE VILES, PH. D., *Professor of the Germanic Languages and Literatures.*
GUY ROGER CLEMENTS, A. M., *Professor of Pure Mathematics.*
*ALVIN SAWYER WHEELER, PH. D., *Associate Professor of Organic Chemistry.*
THOMAS JAMES WILSON, JR., PH. D., *Associate Professor of Latin.*
WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*
PALMER COBB, PH. D., *Associate Professor of German.*
GEORGE WESTON MITCHELL, *Associate Professor of Drawing.*
OLIVER TOWLES, A. B., *Associate Professor of the Romance Languages.*
THOMAS FELIX HICKERSON, A. M., *Associate Professor of Mathematics.*
PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*
ROBERT ANDERSON HALL, PH. D., *Associate Professor of Organic Chemistry.*
JAMES MUNSIE BELL, PH. D., *Associate Professor of Physical Chemistry.*
WILLIAM HENRY FRY, A. B., *Instructor in Geology.*

CANDIDATES FOR GRADUATE WORK

Graduates of the University of North Carolina and of other universities and colleges of good standing are, upon application to the President or Dean, ordinarily admitted to advanced courses of instruction free of charge for tuition. There is, however, a registration fee of twelve dollars and a half for each term. An applicant for admission, unless a graduate of the University of North Carolina, is required to present his diploma and a certificate

*Absent on leave, 1910-1911.

of scholarship and character. If in any department the preliminary training of candidates has not been sufficient to qualify them for strictly graduate work, they will be required to take such undergraduate courses as may be prescribed by the head of the department; but these courses will not be counted for hours in work leading to a graduate degree.

Students who are not graduates may, if they prove themselves qualified, take graduate courses; but no graduate degree will be given to a student who does not already hold a Bachelor's degree from some institution of approved standing.

All courses must be approved by the President or Dean.

DEGREES

The University offers to graduate students advanced work leading to degrees of Master of Arts (A. M.), Master of Science (S. M.), and Doctor of Philosophy (Ph.D.)

MASTER OF ARTS

Candidates for the degree of Master of Arts must complete satisfactorily one year of study consisting of at least fifteen hours a week of recitations or lectures, eight hours of which must be taken from courses in the Graduate Department, the remaining seven from courses in the Graduate Department or from undergraduate courses open only to Juniors and Seniors. The candidate shall select one major subject and two minor subjects. The course as a whole must have unity and must be pursued with definite aim.

A thesis based on the major subject of study and showing capacity for original research must be submitted on or before May 1 of the given year, and must be filed in typewritten form on or before May 15.

MASTER OF SCIENCE

The degree of Master of Science is conferred in the School of Applied Science under conditions similar to those stated above for the degree of Master of Arts.

DOCTOR OF PHILOSOPHY

A candidate for the degree of Doctor of Philosophy is required to pursue, in residence at the University, a prescribed course of advanced study and research in one major subject and two allied minor subjects. In general a term of three years is required, but the degree may be secured in two years in the case of exceptional preliminary training in the major subject.

These requirements of residence and study are, however, entirely secondary. The degree is conferred not simply for faithful study in a determinate field of work for a prescribed period, but because of a high attainment in a special branch of learning, which the candidate must have manifested not only in examination, but by a thesis which gives evidence of independent research and contributes to knowledge. The candidate should choose his major subject in a department in which he has already pursued, for a considerable period, a systematic course of study. To receive this degree, a knowledge of French and German will be found indispensable in most instances. The thesis must be accepted before the candidate may be admitted to examination. The examinations are both written and oral. They demand a minute knowledge of a special field of work as well as a general acquaintance with the department of learning in which the candidate offers himself for the degree.

COURSES OF INSTRUCTION

DEPARTMENT OF BOTANY

Professor COKER.

2. Physiology: a general course in plant physiology; lectures with laboratory and field experiments. Open to Juniors and Seniors. *Both terms, three hours.*
3. Special Morphology of the Algae and Fungi, with attention to the culture of lower fungi, and the identification of mushrooms; lectures with laboratory and field work. Open to Juniors and Seniors. *Both terms, three hours.*
4. Plant Morphology: advanced work in the embryology and anatomy of plants. The student is required to collect and prepare material for the microscopic study of special problems. Theses. *Both terms, five hours or more.*

DEPARTMENT OF CHEMISTRY

Professor HERTY.

11. Research in Inorganic, Analytical, and Industrial Chemistry. This course (with 12 and 13) is intended only for applicants for the degree of Doctor of Philosophy or properly equipped students who desire special training in advanced chemical research. It requires, in addition to the laboratory work, daily conference with the professor and continual reference to the literature touching the matter under investigation. The work is usually assigned by the professor, but by special permission the student may elect to work upon problems to which he wishes to give particular attention. *Both terms, six hours.*
Laboratory fee, \$12.50 a term.

Associate Professor HALL.

12. Research in Organic Chemistry. The statements made in regard to course 11 apply also to this course. *Both terms, six hours.*

Laboratory fee, \$12.50 a term.

Associate Professor BELL.

13. Research in Physical Chemistry. *Both terms, six hours.*

Laboratory fee, \$12.50 a term.

Professor HEWY.

14. Advanced Inorganic Chemistry. The elements are studied with the idea of showing the fundamental laws of Chemistry and the deep-seated relations involved in and leading up to the Periodic System. Attention is also given to those portions of Inorganic Chemistry not usually dwelt upon in the regular courses. The applications of physico-chemical laws and generalizations are emphasized throughout the course. *Both terms, two hours.*

Associate Professor HALL.

15. Advanced Organic Chemistry. The most important modern investigations are reviewed and, in addition, special consideration is given to Class Reactions with reference to their application to organic research. *Both terms, two hours.*

The *Journal Club* meets fortnightly. The current journals, American, English, German, and French, purely scientific and technical, are reviewed by the students and instructors. Attendance upon the meetings of the Club is expected of all students taking the above courses.

DEPARTMENT OF ECONOMICS**Professor RAPER.**

2. Public Finance: a general study of the principles which are involved in the revenues and expenditures of the State, and of the relation of the State to the industries of its citizens;

a special study of taxation and the tariff. Lectures, readings, and reports. Adams's *The Science of Finance*. Open to Seniors. *Both terms, two hours.*

Given in alternate years; to be omitted in 1911-1912.

3. Economic Institutions and Thought in England and the United States; a general study, largely from the historical point of view, of the economic institutions and the systems of economic thought in England and the United States; a special study of socialism. Lectures, readings, and reports. Cheyney's *Industrial and Social History of England*, Brooks's *The Social Unrest*, Spargo's *Socialism*, and the *Communist Manifesto* (Marx and Engels). Open to Seniors. *Both terms, two hours.*

DEPARTMENT OF EDUCATION

Professor CHASE.

10. Child Study. The development of the child from birth to adolescence and the significance of child study for education. Lectures, readings, text. Open also to Seniors; prerequisite, Education 1 and 2, or 3, or 7, or an equivalent. *Fall term, two hours.*
11. Adolescence. A continuation of the preceding course, dealing with the adolescent changes and their significance. Lectures and text. Open also to Seniors; prerequisite, Education 10. *Spring term, two hours.*
12. The Philosophy of Education. A discussion of the underlying principles shaping educational systems, past and present. Seminar course. Readings, theses, discussions. *Both terms, two hours.*

Professors NOBLE and CHASE.

13. American Education. A study of the development of school systems in the United States, with a comparative study of the principal European systems. Research and lectures. *Both terms, two hours.*

DEPARTMENT OF ENGLISH

Candidates for the degree of Doctor of Philosophy who elect advanced work in the English language as their major subject will be expected to take one or more courses in other Germanic languages. All graduate work in the English languages presupposes English 6, or its equivalent, and a reading knowledge of German; but, in exceptional cases, English 6 and German A may be taken along with the English graduate courses.

Associate Professor ROYSTER.

6. Introductory Course in Old and Middle English. In the first term a careful study is made of Old English grammar and syntax; a large amount of easy Old English prose is read. Text: Bright's *Anglo-Saxon Reader*. In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. Texts: Greenough's *Selections From Chaucer*; Emerson's *Middle English Reader*. The primary aim of the whole course is to acquaint the student with the main facts of the beginning and development of the English language. The language of the older periods is considered in its relations to present day English; many points of confusion in modern English, unexplained by the rules of logical grammar, are made clear. Open to Juniors and Seniors. *Both terms, three hours.*

The attention of students electing this course is called to Course 13 in the Latin Department.

7. Advanced Course in Old English and Middle English. The work of the first term continues the study of Old English grammar, particularly in its relations to that of the other Indo-European languages, and takes up the reading of Old English poetry. Texts: Wyatt's *Beowulf*; Blackburn's *Exodus and Daniel*. A study of Chaucer's minor poems will be the basis of the work of the second term, 1911. Prerequisite, English 6, or its equivalent. Open to Seniors. *Both terms, two hours.*

8. An Introduction to the Study of the Science of Language. The student will be shown the aims and methods of modern philological study, the larger results of linguistic science, and the relation of these to the general history of civilization. No special linguistic training is necessary for entrance. Open to Juniors and Seniors. *Both terms, two hours.*

Professor MIMS.

11. Seventeenth Century Literature. In the main, a comprehensive study of the writings of John Milton, considered in relation to the literature and the history of the Civil War. Open to Seniors. *Both terms, two hours.*
This course alternates with Course 12.
12. Eighteenth Century Literature. A study of the development of English prose, of the poetry of the Classical School, and of the beginnings of the Romantic Movement. Open to Seniors. *Both terms, two hours.*
This course alternates with course 11; to be omitted in 1911-1912.

DEPARTMENT OF GEOLOGY

Mr. FRY.

5. Petrography; lectures, laboratory work, and theses. Open to Juniors and Seniors. *Both terms, three hours.*
Laboratory fee, \$2.00 a term.

Professor COBB.

6. Advanced field work and special research in geology and geography; problems assigned individually and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Open to Seniors. *Both terms, three hours.*
9. Research course in historical geology. *Both terms, three hours.*

DEPARTMENT OF GERMANIC LANGUAGES

Professor VILKS.

8. History of German Literature; lectures with parallel reading

and written reports. Prerequisite, German 2A or 2B. Open to Juniors and Seniors. *Both terms, three hours.*

Associate Professor COBB.

4. Middle High German: Paul's *Mittelhochdeutsche Grammatik*; Bachmann's *Mittelhochdeutsches Lesebuch*; translation into New High German. Open to Juniors and Seniors. *Both terms, three hours.*

This course alternates with course 5.

5. Old High German: Braune's *Althochdeutsche Grammatik*; Braune's *Althochdeutsches Lesebuch*. Open to Juniors and Seniors. *Both terms, two hours.*

This course alternates with course 4; to be omitted in 1911-1912.

Professor VILES.

6. Gothic: Braune's *Gotische Grammatik*; selected parts of Paul's *Grundriss der Germanischen Philologie*. This course is intended to lay the foundation for the philological study of the Germanic dialects. Open to Juniors and Seniors. *Both terms, three hours.*

7. Goethe: Goetz von Berlichingen, Tasso, Dichtung and Wahrheit, Hermann and Dorothea, Faust. In connection with the interpretation of the texts, the life of Goethe will be studied. Selected chapters of Hermann Grimm's *Vorlesungen*, Scherer's *History of German Literature*, Francke's *History of German Literature*, and Bielschowsky's *Goethe, Sein Leben und Seine Werke* will be read. Open to Juniors and Seniors. *Both terms, three hours.*

DEPARTMENT OF GREEK

Professor BAIN.

7. Greek Drama: Euripides, Iphigenia among the Taurians; Sophocles, Oedipus Tyrannus; Aeschylus, Agamemnon; Aristophanes, Clouds; Aristotle, Poetics. Open to Juniors and Seniors. *Both terms, three hours,*

8. Prose Composition, advanced course. *Fall term, two hours.*
11. Greek History: the selections from Greek historians in parts I. and II. of Baumeister's *Quellenbuch zur Alten Geschichte*. *Both terms, two hours.*

Associate Professor BERNARD.

12. Bucolic Poetry: the Idylls of Theocritus, Bion, and Moschus. *Both terms, two hours.*

Professor BAIN.

17. Greek Epigraphy and Palaeography: a brief introduction to the study of Greek inscriptions and manuscripts. Lectures and reports. *Spring term, two hours.*
The attention of students electing this course is called to course 14 in the Latin Department.
18. Literature from the period of the battle of Arginusae to the Restoration of Democracy, including general principles of syntax, literary meter, dialects, history, politics, etc. *Both terms, three hours.*

DEPARTMENT OF HISTORY

Professor HAMILTON.

10. Civil War and Reconstruction: a detailed study of the constitutional, political, and economic phases of the period of the Civil War and Reconstruction; lectures, readings, and reports. Open to Seniors. *Both terms, two hours.*

Professor WAGSTAFF.

13. The American Constitution: research in the history of the Constitution of the United States. *Both terms, two hours.*

Professor HAMILTON.

14. American Politics: lectures and research in the history of political parties in the United States. *Both terms, two hours.*

DEPARTMENT OF LATIN**Professor HOWE.**

5. Pliny, selected letters; Juvenal, Satires; Martial, selected epigrams; reading with special reference to the private life of the Romans at the close of the first century A. D. Open to Juniors and Seniors. *Both terms, two hours.*

This course alternates with course 9; to be omitted in 1911-1912.

9. Roman elegiac poets: rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives of the elegists; the history of Greek and Roman elegy. Open to Juniors and Seniors. *Both terms, two hours.*

This course alternates with course 5.

11. The study of a particular author or period in Roman literature; practice in rapid reading, with translation of the more difficult passages only. *Both terms, two hours.*

Associate Professor WILSON.

12. Lectures on comparative syntax of Greek and Latin; principles illustrated from Homer and Terence. *Both terms, two hours.*

Professor HOWE.

14. Latin Epigraphy and Palaeography: a brief introduction to the study of Latin inscriptions and manuscripts. Lectures and reports. *Fall term, two hours.*

The attention of students electing this course is called to course 17 in the Department of Greek.

DEPARTMENT OF MATHEMATICS**Associate Professor MITCHELL.**

- 3C. Stereotomy. A course in the application of descriptive geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers and culverts. A study of warped surfaces and drawings for the

helicoidal arch. Open to Seniors. Prerequisite, Mathematics 3B. *Spring term, two hours.*

Professor CAIN.

4. Calculus, Analytic Mechanics. Open to Juniors and Seniors. Prerequisite, Mathematics 2. *Both terms, three hours.*

Professor CLEMENTS.

5. Theory of Equations (Burnside and Pantan). Open to Juniors and Seniors. *Both terms, three hours.*
6. Differential Equations (Murray). Open to Seniors. *Both terms, three hours.*

Professor STACY.

7. Road and Railroad Surveying and Engineering. Open to Seniors. *Both terms, three hours.*
- 7A. Hydraulics and Sanitary Engineering. Open to Seniors. *Both terms, three hours.*

Professor CAIN.

8. Mechanics of Materials. Prerequisite, Mathematics 4. Open to Seniors. *Both terms, three hours.*

Associate Professor HICKERSON.

10. Theory of Structures. Prerequisite, Mathematics 4. Open to Seniors. *Both terms, four hours.*

Professor CAIN.

- 11A. Retaining Walls and Dams. Prerequisite, Mathematics 4. Open to Seniors. *Both terms, one hour.*
- 11B. Arches. Prerequisite, Mathematics 4. *Both terms, one hour.*

Associate Professor HICKERSON.

13. Design of Structures. May be taken in connection with Mathematics 8 and 10. *Both terms, three hours.*

Professor CAIN.

15. Advanced Differential and Integral Calculus; lectures. *Both terms, two hours.*

DEPARTMENT OF PHILOSOPHY

Professor WILLIAMS.

5. Epistemology: a study of the Critical Philosophy; lectures; theses. First term: Prolegomena and Practical Reason and the works that prepared the way for Kant. Second term: *Kritik der reinen Vernunft*. *Both terms, three hours.*

DEPARTMENT OF PHYSICS

Professor PATTERSON.

2. Modern Electrical Theory; the electron theory, electrolysis, conduction of electricity through gases, electric nature of matter, radioactivity. Prerequisite, Physics 1. Open to Juniors and Seniors. *Both terms, two hours.*
6. Advanced Heat and Thermodynamics. This study is based on Edser's *Heat for Advanced Students*, Ewing's *The Steam Engine and Other Heat Engines*, and Peabody's *Thermodynamics of the Steam Engine*. Prerequisite, Physics 1 and Mathematics 2. Open to Juniors and Seniors. *Both terms, two hours.*

Associate Professor Daggett.

11. Alternating Currents and Alternating Current Machinery: lectures and problem work; testing and study of alternating current machines in the laboratory. Prerequisite, Physics 10 and Mathematics 4. Open to Juniors and Seniors. *Both terms, four hours.*

Laboratory fee, \$2.50 a term.

- 12B. Electric Power Transmission: a study of the theory, construction and operation of modern low and high tension circuits for the transmission of power. Prerequisite, fall term of Physics 11. Open to Seniors. *Spring term, two hours.*

- 13B. Electric Design: fundamental principles of electrical machinery. Lectures, calculations, preparation of drawings and specifications. Prerequisites, Physics 11 and 14, which may be taken in the same year with 13B. Open to Seniors. *Spring term, two hours.*
14. Electrical Engineering Laboratory: calibration of instruments, testing of electric lamps and storage batteries; dielectric tests; dynamo and motor characteristics; regulation; efficiency; heating. Prerequisite, Physics 10. Open to Seniors. *Both terms, three hours.*
Laboratory fee, \$5.00 a term.

DEPARTMENT OF ROMANCE LANGUAGES

Associate Professor TOWLES.

3. French Literature. A general outline of its various periods. Lectures, reading, reports. Prerequisite French 2. Open to Juniors and Seniors. *Both terms, three hours.*
- 4A. French Literature in the Seventeenth Century. Lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.*
This course alternates with course 4B; to be omitted in 1911-1912.

Professor DEY.

- 4B. French Literature in the Eighteenth Century. Lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.*
This course alternates with course 4A.
5. French Literature in the Nineteenth Century. Lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.*

Associate Professor TOWLES.

6. Old French. Reading of the oldest texts: La Chanson de Roland: Aucassin et Nicolette; Chrétien de Troyes. Lectures on French Phonology and Morphology. Prerequisite,

French 2, a knowledge of Latin equivalent to courses 1 and 2 of the Latin Department, and a reading knowledge of German. *Both terms, two hours.*

Professor DEY.

7. Provençal. A study of the ancient language and literature of Provence. Prerequisite, course 6. *Both terms, two hours.*

DEPARTMENT OF ZOOLOGY

Professor WILSON.

2. Comparative Anatomy and Embryology of the Vertebrates; study of types of fishes, amphibia, reptiles, birds, mammals; development of the characteristic vertebrate organs in the frog and chick; fundamentals of microscopic technique; laboratory work with occasional lectures. Open to Juniors and Seniors. *Both terms, three hours.*
3. Comparative Anatomy and Embryology of the Invertebrates; dissection and microscopic study of the types of the chief orders, with some consideration of their embryology; laboratory work with occasional lectures. Open to Juniors and Seniors. *Both terms, three hours.*
4. Animal Morphology: advanced zoological work, with detailed study of problems in comparative anatomy or embryology; laboratory work with use of classical textbooks and original memoirs; theses. *Both terms, five hours or more.*

PART THREE

**PECUNIARY AID AND EXPENSES
MEDALS AND PRIZES
REGULATIONS**

PECUNIARY AID AND EXPENSES

Fellowships and Scholarships

THE TOCH FELLOWSHIP IN CHEMISTRY. (Established in 1905 by Mr. Maximilian Toch.) The holder is expected to devote himself to research work in technical chemistry. This fellowship yields \$200 annually.

THE LIBRARY FELLOWSHIPS, two in number, established in 1907, yield each \$150 annually. The holders are expected to assist in the Library.

THREE TEACHING FELLOWSHIPS, established in 1907, yield each \$200 annually. The holders are expected to assist in the work of instruction in the departments to which the fellowships are assigned.

THE CAMERON SCHOLARSHIPS. (Established in 1892.) The heirs of Paul Carrington Cameron founded, in his memory, ten scholarships of the value of sixty dollars each.

THE DIALECTIC AND PHILANTHROPIC LITERARY SOCIETIES' SCHOLARSHIPS. (Established in 1893) The Dialectic and Philanthropic Literary Societies of the University founded two scholarships of the value of sixty dollars each, recipients of which shall give assistance in the library.

THE MOORE SCHOLARSHIPS. (Established in 1881.) Bartholomew Figures Moore, of Raleigh, bequeathed five thousand dollars, the interest of which shall be devoted to paying the tuition of students.

THE MARY ANN SMITH SCHOLARSHIPS. (Established in 1891.) Miss Mary Ann Smith bequeathed thirty-seven thousand dollars for the foundation of scholarships, the number of scholarships to be determined by the amount of the income.

THE MARY RUFFIN SMITH SCHOLARSHIPS. (Established in 1825.) Miss Mary Ruffin Smith bequeathed to the University, in memory of her brother, Dr. Francis Jones Smith, a valuable tract of land in Chatham county of fourteen hundred and sixty acres, known as Jones's Grove. The will provides that the rents of the land, or the interest on the purchase money, if sold, shall be used to pay the tuition of such poor students as the Faculty shall appoint.

THE SPEIGHT SCHOLARSHIPS. (Established in 1892.) The late Mrs. Mary Shepard Speight bequeathed ten thousand dollars to the University. The income shall be used to pay the tuition of needy students; but if tuition is ever made free, the income shall be used toward paying the salaries of the professors.

THE WOOD SCHOLARSHIP. (Established in 1892.) Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her late husband, Dr. Thomas Fanning Wood, a scholarship of the value of sixty dollars.

THE WEIL SCHOLARSHIP. (Established in 1898.) A fund established by Mr. Henry Weil, of Goldsboro, furnishes one scholarship of the value of sixty dollars.

THE ARMFIELD SCHOLARSHIPS. (Established in 1901 and 1904.) These scholarships are founded by the generosity of Mr. Eugene M. Armfield, of the class of 1888, High Point, N. C.

THE ALUMNI SCHOLARSHIPS. These scholarships have been established by the gifts of Alumni. A scholarship will be awarded for each one thousand dollars given.

THE KENNETH MURCHISON SCHOLARSHIPS. (Established in 1904.) These scholarships have been founded by Mrs. Shirley Carter, of Baltimore, Md., and Mrs. James Sprunt, of Wilmington, N. C., in memory of their father. They are awarded by the founders.

THE BABBITT SCHOLARSHIP. (Established in 1910.) This scholarship was founded by the Babbitt Corporation. It is awarded annually by Professor Harty to that member of the in-

coming Senior Class who has made the best record in the Department of Chemistry. The holder of this scholarship is required to investigate during the spring term some subject connected with the chemistry of the oleoresins. The scholarship yields annually \$250.

None of these scholarships is open to students in the professional Schools of Law, Medicine, and Pharmacy.

All applications for scholarships must be filed in the President's office on or before August 15, and must be in the regular form prescribed by the University. Blank forms are supplied on application to the Registrar.

Free Tuition

By an act of the Legislature in 1887, free tuition is given to candidates for the ministry, to the sons of ministers, to young men under bodily infirmity, to teachers, and to young men preparing to teach. This enables the University to aid effectively the public school teachers of the State.

Loan Funds

THE DEEMS FUND. (Established in 1879.) A fund of six hundred dollars was established by Rev. Charles Force Deems, D. D., late pastor of the Church of the Strangers, New York City, formerly a Professor in the University, in memory of his son, Lieutenant Theodore Disosway Deems. In 1881 the gift was greatly enlarged through the munificence of Mr. William H. Vanderbilt, by a gift of ten thousand dollars, "as an addition to the Deems fund, to be loaned to indigent students of the University."

THE MARTIN FUND. This fund has been established by the bequest of Mr. Thomas D. Martin, of Raleigh. Only the interest of this fund can be used for loans. It became available during the session of 1907-1908.

All applications for loans must be filed in the President's office on or before August 15.

All applications for loans will not be considered unless accompanied by testimony from responsible persons as to poverty and merit. The funds are limited in amount and are loaned only on the security of two approved signatures and at the legal rate of interest.

Expenses

Every effort is made to reduce to the lowest point the necessary expenses of an education at the University. The charges for each of the two terms are as follows:

Tuition fee.....	\$30.00
Fee for Matriculation*.....	12.50
<hr/>	
Total.....	\$42.50

Students taking courses in the laboratories are charged a small fee for materials. Every student must keep on deposit with the Bursar two dollars as security for damages. Willful damage to University property is charged to the perpetrator, if known; otherwise it is charged to the general deposit for damages. Any balance is returned to the student at the end of the year.

Excellent board is furnished at the University Inn for fifteen dollars a month. Good board also is furnished at Commons for ten dollars a month. A few students can earn their board at Commons by waiting on the tables. The entire annual expenses need not exceed three hundred dollars, and they may be reduced to two hundred dollars.

It is confidently believed that no institution offers wider opportunities for self-help to meritorious students of slender means. The desire is that no worthy boy, however poor, shall ever be turned away for lack of means. To such the University and town offer unusual opportunities for support. Many students are now working their way through college by every form of honorable labor. A number are here as a result of money earned or

*This fee includes also the gymnasium fee, the library fee, the fee for medical services.

borrowed. Seventy are aided by loans, and about five hundred have received aid from the University in loans and scholarships in the past twenty years. A few students are selected by the authorities as waiters at Commons. Otherwise all opportunities available in the University and town must be secured by the personal efforts of the individual, or with the assistance of the Faculty Committee on Self-Help. They are not assigned by the President.

Dormitory Accommodations

The University buildings contain unfurnished rooms, available for the accommodation of something over three hundred students. There is no charge for service in addition to the rent. All rooms are fitted with electric lights. Room rent ranges from 75 cents to \$2.75 for each occupant, the price depending upon the location of the room.

All the buildings of the University are heated by hot water according to the most improved methods. In the dormitories the charge for light and heat will be \$2.00 a month for each room.

MEDALS AND PRIZES

THE COLONIAL DAMES PRIZE. (Established in 1908.) The North Carolina Society of Colonial Dames offers annually a first prize of fifty dollars and a second prize of twenty-five dollars for the best essays on some subject connected with the Colonial Period in North Carolina..

THE LITERARY ESSAY MEDAL. (Established in 1890) A gold medal is offered annually by Professor Thomas Hume to that member of the Senior Class who shall present the best essay or thesis on some distinctly literary subject.

THE MANGUM MEDAL IN ORATORY. (Established in 1878.) A gold medal founded by the Misses Mangum, late of Orange County, in memory of their father, Willie Person Mangum, is continued by his granddaughters, Mrs. Julian A. Turner, Mrs. Stephen B. Weeks, and Miss Preston Leach, and awarded to that member of the Senior Class who shall deliver the best oration at Commencement.

THE BINGHAM PRIZE IN DEBATE. (Established in 1899.) This prize is offered by Mr. R. W. Bingham in memory of his great-grandfather, grandfather, father, and brother. It is given annually for excellence in debate. The contestants are representatives of the Literary Societies, and the contest is held on Monday evening of Commencement week.

THE KERR PRIZE IN GEOLOGY AND MINERALOGY. (Established in 1889.) A prize of fifty dollars is offered annually by Mr. William H. Kerr in memory of his father, Professor Washington Caruthers Kerr, to any undergraduate or graduate student, for the best thesis containing original work in the geology or mineralogy of North Carolina.

THE EBEN ALEXANDER PRIZE IN GREEK. (Established in 1887.) A prize of ten dollars is offered annually to that member of the Sophomore class, who shall present the best rendering into English of selected passages of Greek not previously read.

THE WORTH PRIZE IN PHILOSOPHY. (Established in 1883.) Mr. Charles William Worth, in memory of his father, David Easton Worth, of the class of 1853, will print the best thesis submitted by a student in Philosophy 4.

THE EARLY ENGLISH TEXT SOCIETY PRIZE. (Established in 1886.) A special prize is offered annually by the Early English Text Society, of London, for advanced work in Anglo-Saxon and Middle English.

THE BRYAN PRIZE. (Established in 1903.) A prize will be given annually by Mr. William Jennings Bryan for the best thesis in Political Science.

THE HUNTER LEE HARRIS MEMORIAL. (Established in 1903.) Dr. Charles Wyche, of St. Louis, offers annually in memory of Hunter Lee Harris, of the class of 1893; a gold medal for the best original story by any student in the University.

THE THOMAS HUME PRIZE. (Established in 1904.) A prize of fifty dollars is offered annually by Mr. W. G. Peckham, of New York, for the best work in the Old English Ballads and Shakspeare or Milton.

THE WILLIAM CAIN PRIZE IN MATHEMATICS. (Established in 1908.) A gold medal is offered annually by Professor William Cain to that student who shall take the highest rank in Mathematics 4. No student will be recommended for the prize unless he attain to grade 2.

THE PRESTON CUP, given by the Hon. E. R. Preston in memory of his brother, Ben Smith Preston, will be awarded annually to the undergraduate student who during the months September to April has done the best work of a journalistic nature.

Certain prizes are offered also in the Professional Schools of Law, Medicine, and Pharmacy. For these, see under the several schools.

REGULATIONS

Registration

All students are expected to present themselves for registration on *Monday, Tuesday, or Wednesday, September 11, 12, or 13, 1911,* and *Tuesday or Wednesday, January 2 or 3, 1912,* between the hours of 9 A. M. and 4 P. M., at the office of the Registrar.

Arrangement of Courses

Every student, when he presents himself for registration, must submit a list of courses, required and elective, which he desires to pursue.

No student will be allowed to take less than 15 hours nor more than 18 hours of class-room work a week without special permission of the Faculty or of the President.

Students desiring to change their courses must make written application to the President for the desired change. The application will be considered by the President and the instructors in the departments concerned and will be granted only after a careful consideration of the facts in each case. No changes will be permitted after the first Tuesday following the registration days except such as are granted after application to, and approval by, the Faculty.

Candidates for more than one degree shall not offer the same elective in two courses nor a required study in one course as an elective in another.

Assignment of Rooms

The University buildings contain two hundred and four unfurnished double rooms, available for the accommodation of students. These rooms are assigned to students by the Bursar, at the beginning of each term, in the order of application.

The President reserves the right to require any student whom for any reason he considers an undesirable tenant to vacate a room in the University buildings.

All occupants are required to sign a contract subject to the following special rules:

1. In order to retain his room for the next session, a student must notify the Bursar in writing before *May 20*.

2. The room thus signed for will be retained until the *15th day of August*, provided a deposit of \$10 be made with the Bursar on or before that date. This deposit will be forfeited in case the room so retained is not rented for the first term. In order to have a room reserved beyond the above date, the rent for the first term must be paid. Double rooms signed for by only one person will not be retained after that date unless the full rent has been paid. No one signing for a room can transfer the same.

3. Rooms not signed for or forfeited by failure to pay at the proper date will be assigned in the order of application.

4. No dogs shall be kept in the University dormitories. Breach of this regulation leads to forfeiture of the room.

Conduct

By order of the Board of Trustees the Faculty is directed to dismiss from the University any student who is known to engage in drinking intoxicating liquors, gambling, hazing in any form, or to be guilty of dissolute conduct.

Students persistently neglectful of duty, or addicted to boisterous conduct or rowdyism, may be requested to leave the University.

Attendance

Regular attendance upon lectures and recitations is required of all students.

In any term, absences are counted from the first regular meeting of each class. In no case will a student be considered present at any class until he has been registered as a member of that class. No student will be allowed more than five unexcused

absences during a month. When this number is exceeded he will be placed on probation, and notified that any further unexcused absences on his part during the next month may necessitate his withdrawal from college. This notice will be sent to his parents or guardian also.

Any student whose absences from a class during any month equal the number of scheduled meetings of the class for one week is required to stand a special examination on that month's work, within the first two weeks of the succeeding month at an hour to be announced by the instructor. In the case of those whose absences in a given month reach the number indicated above, and who fail to stand the examination provided for such absences, it is left to the discretion of the instructor to retain them in his class.

Students who are absent from a class during the months of December, January, or May as much as 25 per cent. of the scheduled meetings of the class must stand an examination for these months before being entitled to any grade on the term examination. This special examination is to be held in connection with the regular term examinations, or at some time during the examination period.

Students who are absent during any term as much as $33\frac{1}{3}$ per cent. of the scheduled meetings of the class, except in case of prolonged sickness necessitating at least half the absences, may at the discretion of the instructor be debarred from the term examination.

Attendance at Chapel is compulsory for all students in the University except for members of the professional departments and for such others as are specially excused. Absence from Chapel will subject the student to discipline by the Executive.

No student is allowed to absent himself from the University without written permission from the President or his representative. This permission may, at the discretion of the executive officer, be granted only upon the formal request of the parent or guardian.

Examinations

Regular examinations on all subjects are held at the close of each term. Excuses from examinations are granted only in case of absolute necessity. Such an excuse, to be valid, must be obtained from the President by the day of examination, and communicated officially to the instructor holding the examination.

Freshmen, Sophomores, and Juniors who have been excused from an examination or have received the grade 5 (see page 118) in any subject will be given two and only two opportunities to make good the Fall term of a subject may make good the deficiency either in the following September, according to the schedule given below, or at the regular examination of the next lower class in January. Those conditioned on the Spring term of a subject may make good the deficiency either in the following September, according to the schedule given below, or at the regular examination of the next lower class in May. In case a student fails in both of the special examinations, he must repeat the subject with the class of the succeeding year. If the unremoved condition be in an elective subject not offered for the succeeding year, the student must take another elective valued at the same number of hours.

Seniors who have been excused from an examination or have received the grade 5 in any subject at either the Fall or Spring examination will be given but one opportunity to make good the deficiency by special examination, viz., during the regular examination period of the three lower classes in May.

Papers handed in at special examinations by students who have been officially excused from the regular examination will be graded. All others will be marked either "passed" or "failed." Students who hand in papers at regular examinations are considered to have relinquished any claim to grades on special examinations.

Students who absent themselves from regular examinations without having obtained an official excuse, and those who are present at the regular examinations but do not hand in papers, are given the grade 6 (see page 118.) They are required to repeat

the subject with the next lower class, or, in case of an elective not offered in the succeeding year, to take another elective valued at the same number of hours.

A student wishing a special examination in any subject must deposit an application in the office of the Registrar at least one week before the beginning of the period of regular examinations.

Each student is required to subscribe his name to the following pledge on every paper: I hereby certify that during this examination I have neither given nor received aid. No paper without the pledge will be read.

The order of examinations for the removal of conditions in September, 1911, will be as follows:

Wednesday, September 6.

10 A. M.	Latin.	2:30 P. M.	Geology.
	Philosophy.		Pedagogy.

Thursday, September 7.

10 A. M.	Physics.	2:30 P. M.	Chemistry.
	Greek.		History.
			Economics.

Friday, September 8.

10 A. M.	English.	2:30 P. M.	Zoology.
			Botany.

Saturday, September 9.

10 A. M.	German.	2:30 P. M.	Mathematics.
	French.		

Standing

Semi-annual reports of the standing of all students in all the studies of the previous term are sent to parents or guardians. The reports are based upon the following system of marking:—

- Grade 1, 95-100 per cent.
- Grade 2, 90-95 per cent.
- Grade 3, 80-90 per cent.
- Grade 4, 70-80 per cent.
- Grade 5, 60-70 per cent.
- Grade 6, below 60 per cent.

Students must attain a grade of 4 to pass in any study. Grade 5 indicates that the student is conditioned, but may remove the deficiency by special examination, as explained on page 117. Students receiving grade 6 in any study must take such study again with the next lower class, or in case of an elective not offered in the succeeding years, must take another elective valued at the same number of hours.

A student who has failed to pass all the examinations of the year in any College study may not take a higher class in that department, until he makes good his deficiency.

A student who, at the close of the period of special examinations in September, is deficient by an amount equal to eight hours of class-room work for a year will be ranked with the next lower class.

In addition to the semi-annual reports, there are sent out during the session six monthly reports in which the standing of students is indicated in a general way.

Certificates

A certificate is granted to a student who has completed with credit, in any department except those of Mathematics, Chemistry, Physics, and Geology, all work required for a degree together with elective work in the same department. (For detailed statement of requirements, see under the several departments of instruction.)

Graduation

Each Senior will be officially informed by the Registrar in August of all deficiencies standing against him.

Every member of the Senior Class is required to write a thesis or an oration for graduation. Those electing theses must announce their subjects by November 1 to the Dean of the Faculty, who will report them to the professors in the departments concerned. On May 1 the theses shall be read before the professors, subject to criticism and correction. The corrected and approved theses must be handed to the Registrar in typewritten form on or before May 15.

The number of orations is limited to four. The candidates must be members of the College or the School of Applied Science, and must announce their subjects to the Dean of the Faculty by February 1. The orations shall be delivered in private before a committee of the Faculty on May 1, who shall decide upon the relative merits of the orations. The four successful candidates are known as the Commencement Orators of the Senior Class.

Athletic and Other Organizations

No student will be allowed to take part in athletic contests, concerts, debates, etc., entailing absence from the University, whose parent or guardian objects to such participation.

A student who was in attendance upon the University during a previous term or session must have passed satisfactory examinations upon at least eight hours of work before he will be allowed to represent the University in any athletic contest or in any other public capacity.

No student reported as deficient in a majority of his classes may participate in any athletic contest or otherwise publicly represent the University, until the deficiency is made good.

No team or club will be allowed to be absent from the University for more than five lecture days during the term.

The manager of each athletic team or musical club shall submit to the Athletic Committee or to the President a schedule of all engagements before positive arrangements are made.

The rules governing the eligibility of players are as follows:

1. Before any student can become a member or a substitute member of any athletic team in the University, and take part in any intercollegiate contest, he must make application to the Committee on Athletics in the University and secure the endorsed approval of that Committee to his application. It shall be the duty of the Athletic Committee to have the executive officers of the University endorse such application to the effect that the applicant is a regular student of the University, registered on or before October 12 of the fall session.

2. It shall be the duty of the Athletic Committee to inquire into and make a record of the athletic experiences of the appli-

cant, and it shall be the duty of the applicant to appear before the committee and answer on his honor such questions as the Committee may see fit to ask.

3. It shall be the duty of the Athletic Committee to require a pledge in writing of the applicant, certifying on his honor that he has never accepted directly or indirectly remuneration, compensatory gift, valuable consideration, or promise thereof, for his athletic services, and that he is in the proper and strict sense of the word an amateur player in collegiate athletic sports, before the Committee endorses his application.

4. No student of the University who has been a member or a substitute member of a baseball or football team at another college* or university during the preceding college year shall be permitted to become a member of either baseball or football team at this University during the college year in which he matriculates until he shall have been a student in residence at this University for at least five months.

5. No person whose name is in the faculty list or appears in the catalogue list of officers of instruction and administration of the University, and who receives remuneration therefrom, shall be a member of any athletic team representing the University.

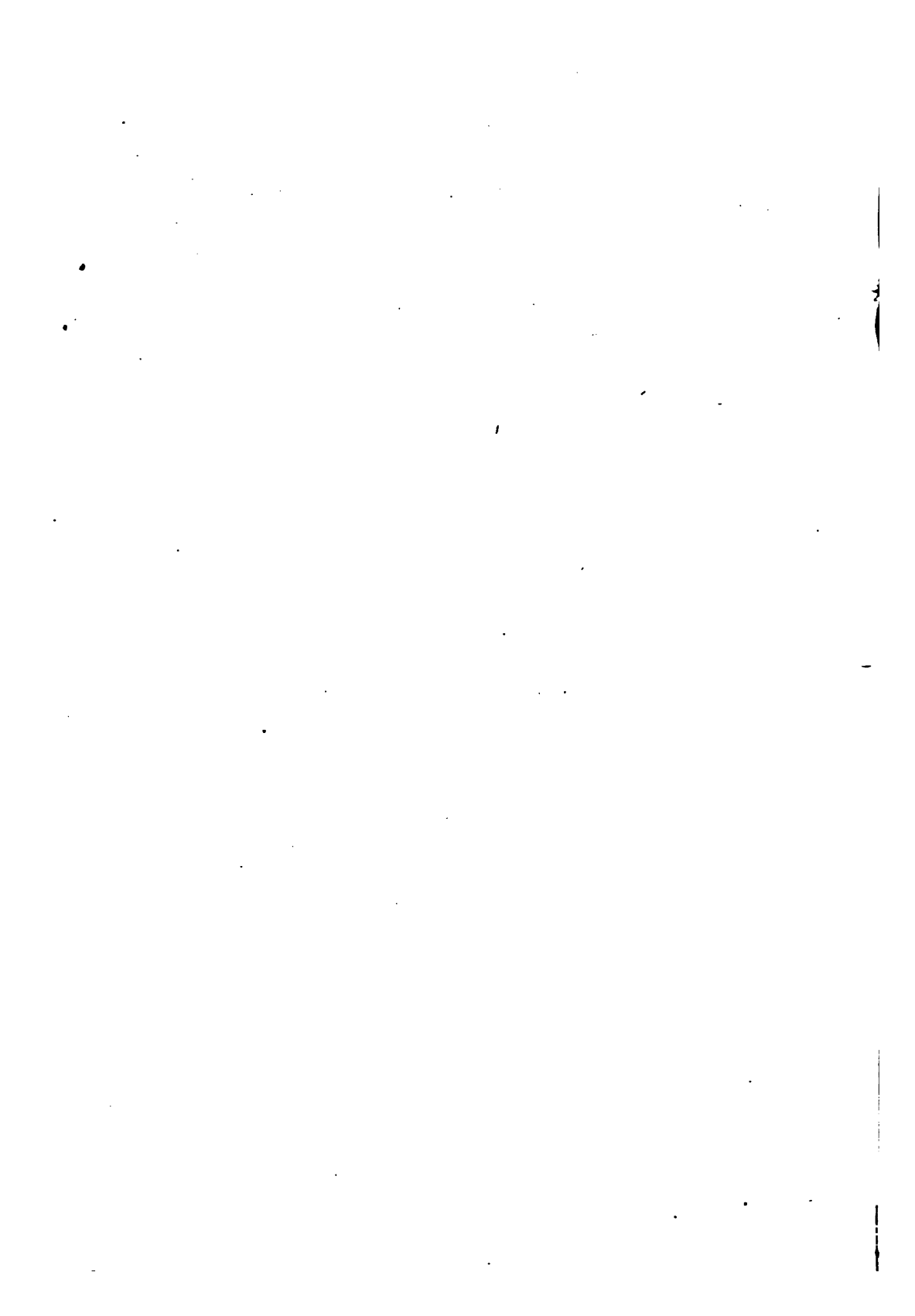
6. Whereas a member of an athletic team of this University is a representative student and enjoys special honor in thus representing the University, this privilege shall be withheld from any student whose scholastic standing is discreditable.

7. Any student who has participated as a player on a college team in either football or baseball for a period of four years shall thereafter be ineligible for such athletic contests of the University.

Fraternities

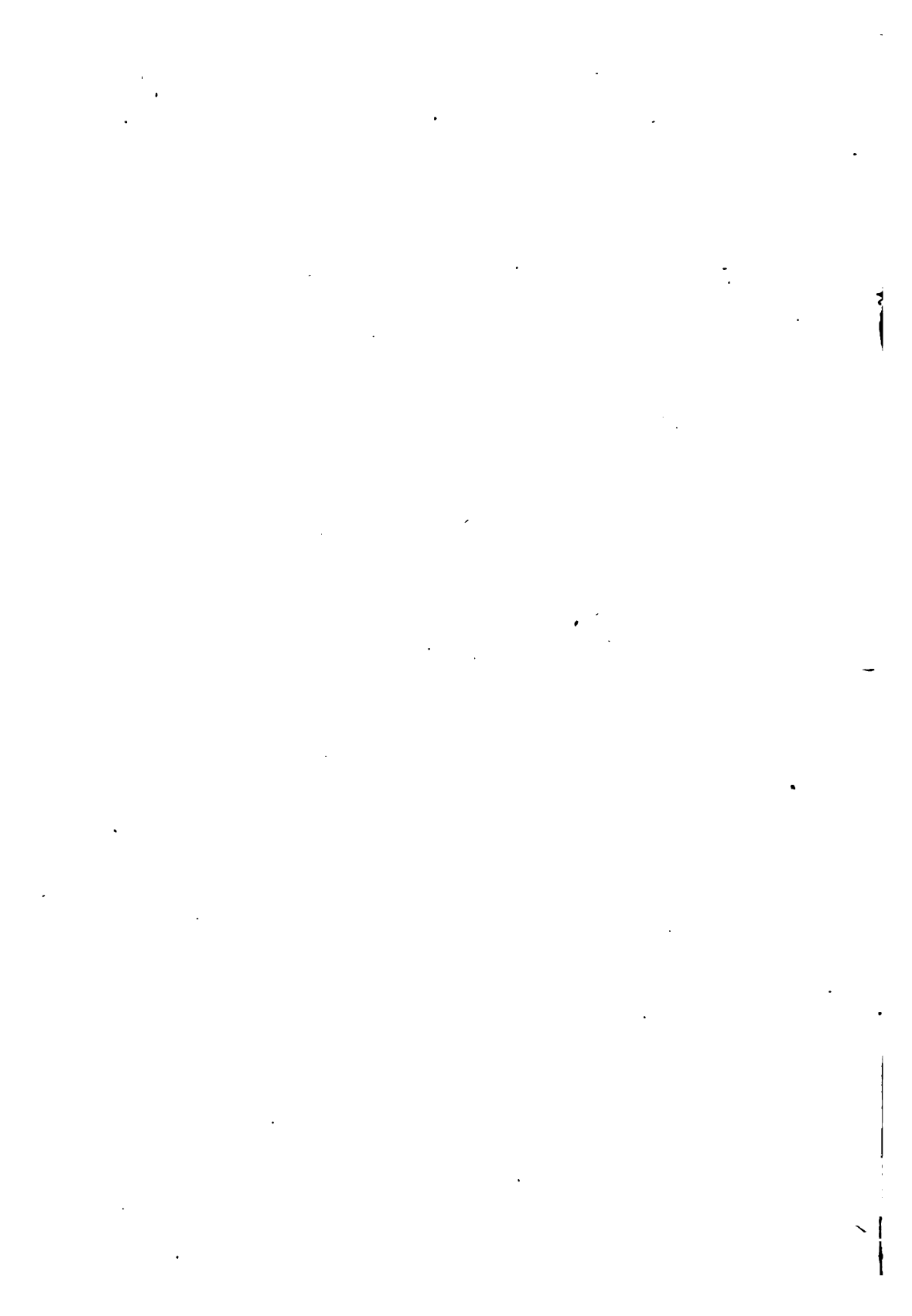
Undergraduate students may join fraternities after registration in their Sophomore year. Fraternity men are not allowed to pledge Freshmen to join fraternities.

*The term college is hereby interpreted to mean any college named in Table 28 of the Report of the U. S. Commissioner of Education, which has not less than 150 male students of collegiate grade recorded in the catalogue of the institution in question as students of the college year preceding the applicant's entrance into the University.



PART FOUR

**THE SCHOOL OF LAW
THE SCHOOL OF MEDICINE
THE SCHOOL OF PHARMACY
THE SUMMER SCHOOL FOR TEACHERS**



THE LAW SCHOOL

FRANCIS PRESTON VENABLE, PH. D., LL. D., PRESIDENT.

LUCIUS POLK MCGHEE, A. B., *Dean*.

LUCIUS POLK MCGHEE, A. B., *Professor of Law*.

PATRICK HENRY WINSTON, A. B., *Professor of Law*.

ATWELL CAMPBELL MCINTOSH, A. M., *Professor of Law*.

The law school which developed into the Law School of the University was founded in 1843 at Chapel Hill as a private school by William H. Battle, then a judge of the Superior Court, later a Justice of the Supreme Court of the State. In 1845 Judge Battle was made Professor of Law in the University and it was provided that the degree of Bachelor of Laws should be conferred on those completing the prescribed two year course. From the records of the University, however, it seems that few degrees were actually conferred. For a long time the school maintained a certain independence of the University. The Professor of Law received no salary though he enjoyed the fees from his classes, and the students were not entirely subject to the discipline of the University.

In 1899 the school was completely incorporated into the University, with the late Judge James C. MacRae, previously a Justice of the Supreme Court of North Carolina, as the first Dean of the Law School.

REQUIREMENTS FOR ADMISSION

For admission to the regular work of the school, students, unless they are "special students" as explained below, must have completed fourteen units of work. This amount of work is about

equivalent to four years training in a high school. It is the same as the entrance requirement to the Freshman class in the academic department of the University, and will be found explained on page 26 of General Catalogue.

Students over twenty years of age who are not able to qualify as regular students may be admitted as "special students" upon presenting satisfactory evidence that they have received such training as will enable them to make profitable use of the opportunities offered in the school.

Seniors in the College will be admitted to take as electives courses selected, with the approval of the Dean, from the first year's work of the law school.

The days for the registration of law students are the same as for the registration of students for the college. See the General Catalogue, page 114.

DEGREE OF LL. B.

The degree of Bachelor of Laws (LL. B.) will be conferred upon students who have satisfactorily completed the entire courses prescribed for the Junior and Senior Classes of the Law School, and who satisfy the following conditions:

(a) Candidates must have completed academic courses equivalent to the work of the Freshmen and Sophomore Classes in the University.

(b) Candidates must present satisfactory theses on legal subjects approved by the Dean.

(c) Candidates must have spent at least one year in residence at the University as students in the School of Law.

In the discretion of the Law Faculty, credit may be given to candidates for courses completed in other Schools of Law of recognized standing.

Plans have been considered for enlarging and lengthening the curriculum, and the Law Faculty has been authorized to formulate a three years' course of study for candidates for the degree of Bachelor of Laws. It is not considered wise to make this change at present, and it will be duly announced in the catalogue.

CERTIFICATES

Any student who has been in regular attendance in the School of Law and who has satisfactorily completed one or more courses is entitled to a certificate of attendance and standing.

NUMBER OF HOURS WORK REQUIRED OR PERMITTED

No student will be permitted to take more than eighteen hours of work weekly except with the special permission of the Faculty.

No student, unless he is also taking other courses in the University, will be permitted to take less than ten hours of work weekly, nor will a student taking less than ten hours weekly be considered as studying law within the rule of the Supreme Court requiring two years' study of law as a necessary preliminary of applicants for license to practice in North Carolina.

COURSES OF INSTRUCTION

The courses offered and the general order in which they are taken up are indicated in the following programme of studies, which is arranged to cover two years, known as the Junior Year and the Senior Year. The method of instruction varies in the different courses. In some text-books and lectures with collateral reading of cases form the basis of work. In others the subject is developed directly from the study of selections of decided cases, and quizzes thereon.

Junior Year.**FALL TERM.**

ELEMENTARY LAW.—Professor WINSTON. A general outline of the field of legal studies. Clark's *Elementary Law*. Two hours a week.

CONTRACTS.—Professor McINTOSH. The general principles of contract. McIntosh's *Cases on Contracts*. Four hours a week.

PERSONS.—Professor McGEHEE. Domestic relations, including husband and wife with marriage and divorce, parent and child, guardian and ward, infancy, insanity, drunkenness, and aliens. Woodruff's *Cases on Domestic Relations*, and selected cases. Two hours a week.

BAILMENTS.—Professor McINTOSH. Bailments, carriers, telegraphs, and telephones. Goddard's *Cases on Bailments*. Two hours a week.

AGENCY.—Professor McGEHEE. Mechem's *Cases on Agency*. Two hours a week.

PROPERTY.—Professor WINSTON. A rapid outline of personal property, after which the study of real property is begun. The first part of Lawson's *Cases on Personal Property*. Tiffany's *Modern Law of Real Property*. Three hours a week.

SPRING TERM.

CRIMINAL LAW.—Professor WINSTON. May's *Criminal Law*, with statutes and selected cases. Two hours a week.

TORTS.—Professor McINTOSH. Burdick's *Torts*, Mordecai and McIntosh's *Cases on Remedies*. Three hours a week.

SALES.—Professor McGEHEE. Lawson's *Cases on Personality* (p. 321 to end) and selected cases. Two hours a week.

NEGOTIABLE INSTRUMENTS.—Professor McINTOSH. Bigelow's *Cases on Bills and Notes* and *The Negotiable Instrument Law*. Two hours a week.

QUASI-CONTRACTS.—Professor McGEHEE. Lectures and selected cases. One hour a week.

PROPERTY.—Professor WINSTON. The law of real property as presented in Tiffany's *Modern Law of Real Property* is completed. Three hours a week.

PRACTICE AND PROCEDURE.—Professor McGEHEE. A study of remedies and pleading, which continues throughout the remainder of the student's course, is begun. This term is devoted to common law remedies and common law pleading. Phillip's *Code Pleading* to section 136, Mordecai and McIntosh's *Cases on Remedies* and selected cases. Two hours a week.

Senior Year

FALL TERM

CONSTITUTIONAL LAW.—Professor McGEHEE. Cooley's *Principles*, Boyd's *Cases on Constitutional Law* and selected cases. Four hours a week.

EQUITY.—Professor WINSTON. Bispham's *Principles of Equity*. Three hours a week.

EVIDENCE.—Professor McINTOSH. Wigmore's *Cases on Evidence*. Three hours a week.

INSURANCE.—Professor WINSTON. Richard's *Cases on Insurance*. Two hours a week.

FEDERAL COURTS.—Professor McINTOSH. The United States Courts and the study of the law and procedure of selected topics in Federal jurisdiction. Hughes on *Federal Jurisdiction* is the basis of instruction.

PRACTICE AND PROCEDURE.—Professor McGEHEE. After a study of equity pleading and procedure, pleading under American code system is begun. The subject is developed through selected cases in connection with Phillip's *Code Pleading* from section 137. Two hours a week.

SPRING TERM.

PRIVATE CORPORATIONS.—Professor McGEHEE. Clark on *Corporations*, with cases. Three hours a week.

PUBLIC CORPORATIONS.—Professor McINTOSH. Elliott's *Public Corporations*, with cases. Two hours a week.

BANKRUPTCY AND INSOLVENCY.—Professor McINTOSH. Assignments for benefit of creditors, creditor's remedies, and the Federal bankruptcy act. Lectures, selected cases, the Federal bankruptcy act. Two hours a week.

PARTNERSHIP.—Professor WINSTON. Mechem's *Cases on Partnership*. Two hours a week.

SURETYSHIP.—Professor WINSTON. Bunker's *Cases on Suretyship*. One hour a week.

WILLS AND ADMINISTRATION.—Professor WINSTON. Costigan's *Cases on Wills and Administration*. Two hours a week.

CONFLICT OF LAWS.—Professor McINTOSH. Lectures and cases. One hour a week.

PRACTICE AND PROCEDURE.—Professor McGEHEE. Code pleading and practice. Phillip's *Code Pleading*, and cases. Two hours a week.

SCHEDULE OF LAW RECITATIONS

Senior studies in CAPS; Junior in small type.

	8:30	9:45	10:40	11:35	12:30
Fall	Bailments	CONST. L.	FED. CTS.	Agency	EVIDENCE
MONDAY					
Spring	Bills and Notes	PRIV. CORP.	Plead., Etc.	Sales	BANKER'CY
Fall	PLEAD., Etc.	EQUITY	Property	Contracts	EVIDENCE
TUESDAY					
Spring	PLEAD., Etc.	PART'SHIP	Property	Torts	MUN. CORP.
Fall	Bailments	CONST. LAW	Persons	Contracts	INSUR'NCE
WEDNES.					
Spring	Bills and Notes	PRIV. CORP.	Quasi-Contr.	BANKER'CY	WILLS, Etc.
Fall	Elem. Law	EQUITY	Property	Contracts	CONST. L.
THURSDAY					
Spring	Crim. Law	SUCCESSORSHIP	Property	Torts	CONFL. L.
Fall	PLEAD., Etc.	CONST. LAW	Persons	Agency	INSUR'NCE
FRIDAY					
Spring	PLEAD., Etc.	PRIV. CORP.	Plead., Etc.	Sales	WILLS, Etc.
Fall	Elem. Law	EQUITY	Property	Contracts	EVIDENCE
SATURDAY					
Spring	Crim. Law	PART'SHIP	Property	Torts	MUN. CORP.

MOOT COURT

A Moot Court for practice in the preparation of pleadings, the argument of law points, and the actual conduct of trials is a feature of the school. It is conducted by the students with the assistance and co-operation of the Faculty. The court meets weekly, a member of the faculty presiding.

UNIVERSITY PRIVILEGES

Students in the Law School will be admitted without additional expense to the courses given in the Department of Economics and History in the University, and to the courses in Public Speaking and English, subject to the rules stated as to the num-

ber of hours which a student may take. A student taking such a course in the University must of course satisfy the entrance requirements for the course selected.

Students of the School are also entitled to become members of the Dialectic and Philanthropic Literary Societies of the University, where they may take part in or witness debates of a high order and train themselves in parliamentary law. They are further admitted to all the privileges of the University library of 55,000 volumes, to the University gymnasium, and the organizations of the University generally, literary, social, and athletic.

THE LAW LIBRARY

The law library is housed in the Law Building and contains about 4,000 volumes. The annual revenue of a fund raised by the former students and friends of the late Professor John Manning, LL. D., who presided over the School for many years, is devoted to the purchase of books for the library. Free access to the library is allowed to the students of the School, though they are not permitted to take books from the building.

THE BRYAN PRIZE

A prize of twenty-five dollars in gold is offered each year by Shepard Bryan, Esq., of the Atlanta Bar, in honor of his father, the Honorable Henry R. Bryan, of New Bern, N. C., to be awarded to the member of the Senior Law Class who shall submit the best thesis upon an approved legal subject.

FEES AND EXPENSES

Tuition for Fall and Spring terms, each.....	\$35.00
Registration fees.....	12.50

There are no scholarships in the School. Good board is furnished at Commons Hall for \$10 a month and at the University Inn for \$15 a month. In the village board may be secured for from \$8 to 15, or with rooms, from \$10 to \$20 a month.

The rent of unfurnished rooms in the dormitories ranges from seventy-five cents to \$2.50 a month, for each occupant; and for

each room a charge of one dollar a month is made for electric light and one dollar a month for heat.

ADMISSION TO THE BAR OF NORTH CAROLINA

Admission to the Bar of North Carolina is under the direct control of the Supreme Court of the State. The court holds two examinations annually of applicants for license, one in February, the other in August. The examination is conducted in writing and under the supervision of the Court. The rules of the Court require the applicant to have read law for two years. Where circumstances and means permit, the reading should be done at a regular school of law. But the requirements of the rule may be satisfied by private reading. Students who have read law for a year privately or in a law office may by attending the school for one year, beginning either in September or January, and by attending a term of the summer school have an opportunity to study or review the course required by the Supreme Court of applicants for license.

To do this, it will be necessary for such students to select, with the approval of the Faculty, subjects from the regular courses of both the Junior and Senior years. Such a course is not advised or approved except in cases where limited means render it a regrettable necessity. Two years spent in systematic study under competent instructors is a minimum period for mastering even the elements of so wide, complicated and technical a subject as the law. The student should remember that he is preparing for his life-work, and only detriment to that life-work can in general result from a feverish anxiety to cut short the period of preparation and to abridge the studies which experience has marked out for the acquisition of the necessary qualifications.

THE SUMMER LAW SCHOOL

A session of the School of Law is maintained during each summer for the purpose of providing:

- 1st. A course for those who wish to begin the study of law,

2nd. A thorough review of the course prescribed by the Supreme Court of North Carolina for application for license.

3rd. An opportunity for instruction for men who cannot become resident students during the scholastic year.

4th. An opportunity for members of the Bar to review certain branches of law.

Session

The term for the summer of 1911 begins June 15th and ends August 25th, three days prior to the examination before the Supreme Court for admission to the Bar of North Carolina.

Lectures and Recitations

At this session daily lectures and recitations of one hour and a half each will be held by two professors of the Law Faculty. In addition there will be frequent quizzes. The two courses offered will cover the requirements for reading prescribed for admission to the Bar of North Carolina. The instruction is to be conducted by means of text-books, lectures, leading cases, quizzes, and moot-court.

An outline of the work of the two courses includes:

1. Ewell's Essentials of the Law, Volume I (embracing the law of Domestic Relations, Real Property, Personal Property, and Crimes. Other text-books to be used are 1st Blackstone; 2nd Blackstone and Tiffany on Real Property; 3rd Blackstone and Code Pleading; 4th Blackstone; Clark on Contracts; Burdick on Torts.
2. 1st Greenleaf on Evidence and N. C. Revisal Chapter on Evidence; Bispham on Equity; Clark on Corporations; Schouler on Executors, with N. C. Revisal chapters on Widows, Wills, Testaments, Descent and Distribution; First volume of N. C. Revisal of 1905, with Clark's Code of Civil Procedure; Constitutions of the United States and North Carolina; The Codes of Legal Ethics of the National and State Bar Associations; Cooley's Principles of Constitutional Law.

Examinations

No entrance examination is required; but each student must satisfy the faculty that he has sufficient general education to enable him to take the course with profit to himself. Examinations are required as each subject is completed, and at the end of the term certificates to that effect are issued to such students as have passed with credit all examinations in both courses. These certificates will not entitle the recipients to any credit in the work of the regular school.

Fees and Expenses

Tuition for term.....	\$30.00
Registration and Incidental Fees.....	5.00

The above mentioned fees cover privileges of University library, gymnasium, and baths. Board in the village, with room, will cost from \$10 to \$20 a month; without room, from \$10 to \$15.

For further information address the President of the University or the Dean of the School of Law, Chapel Hill, N. C.

THE SCHOOL OF MEDICINE

FRANCIS PRESTON VENABLE, PH.D., D.SC., LL.D., PRESIDENT.

ISAAC HALL MANNING, M. D., *Dean*.

CHARLES STAPLES MANGUM, A. B., M. D., *Professor of Anatomy*.

ISAAC HALL MANNING, M. D., *Professor of Physiology*.

WILLIAM DEBERNIERE McNIDER, M. D., *Professor of Pharmacology and Bacteriology*.

* — — —, *Professor of Histology and Pathology*.

HENRY VAN PETERS WILSON, PH.D., *Professor of Zoology*.

EDWARD VERNON HOWELL, A. B., Ph.G., *Professor of Pharmacy*.

CHARLES HOLMES HERTY, Ph.D., *Smith Professor of General and Industrial Chemistry*.

WILLIAM CHAMBERS COKER, Ph.D., *Professor of Botany*.

ANDREW HENRY PATTERSON, A. M., *Professor of Physics*.

†ALVIN SAWYER WHEELER, Ph.D., *Assistant Professor of Organic Chemistry*.

ROBERT BAKER LAWSON, M. D., *Associate Professor of Anatomy*.

PARKER HAYWARD DAGGETT, S.B., *Associate Professor of Electrical Engineering*.

ROBERT ANDERSON HALL, Ph.D., *Associate Professor of Organic Chemistry*.

JAMES MUNSIK BELL, Ph.D., *Associate Professor of Physical Chemistry*.

JOHN GROVER BEARD, Ph.G., *Instructor in Pharmacy*.

HAMPDEN HILL, S.B., *Instructor in Chemistry*.

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics*.

GEORGE ALEXANDER WHEELER, *Assistant in Anatomy*.

*To be elected.

†Absent on leave, 1910-1911.

WORTHAM WYATT, A.B., *Assistant in Bacteriology.*
JOHN ARCHIBALD MCKAY, *Assistant in Botany.*
ROBERT LEE HUNTER, *Assistant in Chemistry.*
WILLIAM LEWIS JEFFRIES, A.B., *Assistant in Chemistry.*
THOMAS PALMER NASH, JR., A.B., *Assistant in Chemistry.*
WILLIAM AUGUSTUS RUDISILL, A.B., *Assistant in Chemistry.*
DAVID BRYAN SLOAN, A.B., *Assistant in Histology.*
JAMES AMBLER SPEIGHT, *Assistant in Histology.*
JAMES TALMAGE DOBBINS, *Assistant in Physics.*
ALEXANDER LITTLEJOHN FEILD, *Assistant in Physics.*
GORDON WESLEY THOMPSON, *Assistant in Physics.*
ORREN WILLIAMS HYMAN, A.B., *Assistant in Zoology.*
LEE FRANKLIN TURLINGTON, A.B., *Assistant in Zoology.*

HISTORICAL SKETCH

The School of Medicine was established in 1879, and Dr. Thomas W. Harris was chosen to direct its work. A course of two years in theoretical medicine was offered, but the difficulties of conducting it on this plan were very great and the effort was abandoned in 1886. In 1890, however, the school was re-established, Dr. R. H. Whitehead was elected Professor of Anatomy, and a course of one year in the elementary subjects, Anatomy, Chemistry, Physics, Physiology, etc., was offered. As the requirements for the degree of Doctor of Medicine were increased the medical faculty was enlarged and the course extended to embrace the first two years of the medical curriculum. In 1898 it was admitted to membership in the Association of American Medical Colleges, and in 1901 it was incorporated as an integral part of the University on the same footing as the graduate and other professional schools. In 1902 a clinical department was established at Raleigh, but it seemed advisable to discontinue it in 1909 on account of lack of equipment.

COURSES OFFERED

The following courses are offered:

1. A Preparatory or Pre-medical Course. This is a course of one year in which special attention is given to the ele-

mentary sciences, Biology, Chemistry, and Physics. It is required for entrance to the medical course.

2. **The Medical Course.** The Association of the American Medical Colleges recommend for the degree of Doctor of Medicine a course of four years. The Medical Course covers the subjects of the first two years of the curriculum and additional courses in chemistry and comparative anatomy. It is accepted in full by most of the medical schools.
3. **A Combined Course,** a course leading to the degree of Bachelor of Science. This is a course of two years of prescribed work in the College of Liberal Arts and two years of the medical course, the satisfactory completion of which entitles the student to the degree of Bachelor of Science. It enables the student to obtain a literary degree and the degree of Doctor of Medicine in six years.

The Curriculum

PREPARATORY OR PREMEDICAL COURSE

English 1, 3 hours	Chemistry 1, 4 hours
German A, 3 "	Chemistry 3, 2 "
Physics A, 3 "	Zoology 1, 3 "

The Medical Course

FIRST YEAR

Chemistry: Quantitative Analysis (Chem. 4A) or Organic Chemistry (Chem. 5). Six hours a week until February 1: total, 96 hours.

Biological Chemistry. Six hours a week from February 1 to the end of the term: total, 96 hours.

Anatomy: Comparative Anatomy. Six hours a week until February 1: total, 96 hours.

Human Anatomy 1: Nine hours a week throughout the year: total, 280 hours.

Microscopic Anatomy: Ten hours a week until March 1: total, 200 hours.

Embryology: Eight hours a week from March 1 to the end of the term: total, 96 hours.

Pharmacognosy and Pharmacy: six hours a week from February 1 to the end of the term: total, 90 hours.

SECOND YEAR

Physiology. Five hours a week throughout the year: total, 180 hours.

Biological Chemistry. Six hours a week until February 1: total, 96 hours.

Experimental Physiology. Five hours a week from February 1 to the end of the term: total, 75 hours.

Anatomy. Nine hours a week until February 1: total, 126 hours.

Neurology. Six hours a week until January 1: total, 78 hours.

Bacteriology. Eight hours a week until February 1: total, 128 hours.

Pathology. Twelve hours a week from February 1 to the end of the term: total, 180 hours.

Pharmacology and Materia Medica. Nine hours a week from February 1 to the end of the term: total, 180 hours.

Minor Surgery and Normal Physical Diagnosis. Four hours a week from February 1 to the end of the term: total, 60 hours.

Experimental Pharmacology. Five hours a week from February 1 to the end of the term: total, 75 hours.

SUMMARY OF FIRST AND SECOND YEARS

Subjects	Hours
Chemistry.....	288
Anatomy.....	880
Physiology.....	255
Bacteriology.....	128
Pathology.....	180
Pharmacology.....	155
Pharmacy.....	90
Minor Surgery and Physical Diagnosis....	60
Total.....	2036 hours.

The Combined Course: College Studies

First Year		Second Year	
	English 1 (3)		English 2 (3)
	Mathematics 1 (4)		Physics 1 (3)
	Chemistry 1 (3)		Zoology 1 (3)
	Botany 1 (3)		Chemistry 3 (2)
Select one	{ German 1 (3)	Select one	{ German 1 or 2 (3)
	{ French 1 (3)		{ French 1 or 2 (3)
	{ Latin 1 (4)		{ Latin 1 (4)
		Select one	{ Drawing 1 (2)
			{ History 1 (3)

ADMISSION

Candidates for admission and students already members of the School should present themselves to the President and Dean of the School for registration on *Monday, Tuesday or Wednesday, September 11, 12 or 13, 1911*, and *Monday or Tuesday, January 2 or 3, 1912*.

ENTRANCE REQUIREMENTS

The requirements for admission to the premedical combined courses are the same as for the College of Liberal Arts.

The requirements for admission into the Medical School are the satisfactory completion of one year in the University or certificates of its equivalent from an approved college. Students may be admitted to the second year of the Medical course upon furnishing certificates of having completed the first year in an approved Medical school, or upon passing an examination upon the subjects studied in the first year. An examination will not be allowed until the candidate furnishes a certificate of having attended eighty per cent. of the hours required.

EXAMINATIONS

Regular examinations are held during the two regular examination periods of the College of Liberal Arts. Special examinations will be given for the purpose of making up deficiencies during Registration Week. A fee of \$5.00 will be charged each applicant for an examination at any other time.

EXPENSES

The following are the charges a term payable at the beginning of each term in September and January respectively:

Tuition.....	\$35.00
Fee for matriculation (registration, library, infirmary, etc.).....	12.50
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Total.....	\$47.50

In addition the following fees will be charged for laboratory courses a term:

Chemistry 4A, \$5.00; Chemistry 10, \$5.00; Zoology 1, \$3.00; Zoology 2, \$5.00; Experimental Physiology and Pharmacology, \$5.00; Pharmacy, \$5.00; Bacteriology, \$2.50; Pathology, \$2.50; for the use of the microscope, 50c.

The laboratory fees are divided approximately equally among the four terms. The total charge in the first year is between \$55.00 and \$59.00 a term, in the second year between \$57.50 and \$58.50 a term.

The following are the charges a term for students pursuing the premedical course:

Tuition.....	\$30.00
Matriculation, etc.....	12.50
Laboratories.....	5.00
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Total.....	\$47.50

Good board is furnished at Commons Hall for \$10 a month and at the University Inn for \$15 a month. The rent of unfurnished rooms in the dormitories ranges from seventy-five cents to \$2.75 a month for each occupant. For each room a charge of \$2.00 a month is made for electric light and heat.

PRIZES AND SCHOLARSHIPS

THE HARRIS PRIZE. (Established in 1895). Mrs. Thomas W. Harris offers in honor of the late Dr. Thomas W. Harris, a pocket case of instruments to that student who shall make the best grade in anatomy.

THE WOOD SCHOLARSHIP. (Established in 1895). Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her husband, the late Dr. Thomas Fanning Wood, a scholarship covering the tuition fees.

THE GENERAL PLAN OF INSTRUCTION

In the arrangement and the conduct of the courses an effort is made to follow modern educational ideals. A year of college training in the elementary sciences, Chemistry, Physics, and Biology, is recognized as a minimum preparation for the study of medicine, and such a course is offered. The necessity, however, for a more liberal education, especially in the sciences, is apparent. Moreover the study of Anatomy, Physiology, Bacteriology, and other elementary subjects is at least of equal value with the study of Chemistry, Physics, and Biology in a general education. These facts are recognized in the offering of a course leading to the degree of Bachelor of Science and Doctor of Medicine. In offering such a course the value of a properly directed college course of four years as a preparation for the study of medicine is not minimized,—on the contrary it is earnestly recommended.

In the arrangement of the courses of study in the Medical School the attempt is made to follow their natural sequence. In the first year the student devotes his time to anatomical and chemical studies: Gross Human and Comparative Anatomy, Microscopic Anatomy, Embryology, Biological Chemistry, and Pharmacy, a thorough knowledge of which is necessary to the proper appreciation of the subjects to follow. In the second year Physiology is begun and completed. Anatomy, Biological Chemistry, Toxicology, and Bacteriology are completed in the first half of the year; Materia Medica, Pharmacology, Pathology, Normal Physical Diagnosis in the second half; so that at the expiration of the two years the student will have completed the fundamental branches of medicine, and be prepared to enter upon the study of the more practical subjects.

In the plan of instruction the laboratory method supplemented with a systematic course of lectures and demonstrations is pursued. The lectures and laboratory courses are, as far as possible,

given contemporaneously, for in this way the student not only acquires technical skill, but, it is believed, will gain a more thorough grasp of the subject. When advisable the classes are divided into small sections, so that the work of each student is under the direct supervision and close observation of the instructor. Frequent oral and written quizzes and a final examination are given in each subject, the object of which is to exact systematic and continuous work. An attendance upon class of 80 per cent. and a grade of 80 in each subject is required.

EQUIPMENT

The School is well equipped. It has an adequate corps of trained instructors devoting their entire time to teaching and investigating, and those directly in charge of all purely medical subjects are graduates of Medical Schools. A building containing ten rooms with a floor space of six thousand square feet and a recently erected Anatomical Laboratory have been set apart for its use. In the former the lecture rooms, the Bacteriological, Pathological, Histological, Physiological, and Pharmacological laboratories and the department library are located, all of which are well lighted and provided with modern conveniences and apparatus for the careful training of the student and the more advanced work of the instructor. The anatomical building is well equipped for dissection and the care of anatomal material. Instruction in Comparative Anatomy is given in Davie Hall and Chemistry in the chemical laboratory, both of which are described elsewhere. The University library, the gymnasium, and the laboratories of all departments of the University are open to the medical students who are encouraged to avail themselves of them.

COURSES OF INSTRUCTION

Chemistry

Professor HERTY and Mr. HILL.

1. General Descriptive Chemistry. Premedical. The elements are studied in a systematic manner. The laws governing their combination and the compounds resulting are con-

sidered with appropriate reference to their occurrence and relationships to medicine. The latter part of the course is taken up with organic chemistry. Texts: McPherson's *Elementary Chemistry*; Remsen's *Organic Chemistry*. *Both terms, three hours.*

Laboratory fee, \$.125.

Associate Professor HALL and Messrs. NASH and HUNTER.

3. Qualitative Analysis. Premedical. Laboratory work with lectures. The behavior of the elements and their compounds is studied in the laboratory. Practice is given in the analysis of known and unknown mixtures. Text: Venable and Wheeler's *Qualitative Chemical Analysis* and and the professor's notes. *Both terms, two hours.*

Laboratory fee, \$5.00 a term.

Associate Professor BELL.

- 4A. Quantitative Analysis. A brief course in gravimetric methods, followed by a more extended course in volumetric methods. Laboratory notes. *Fall term, six hours.*

Laboratory fee, \$5.00.

Associate Professor HALL.

5. Organic Chemistry. Elective; prerequisite, Chemistry 1 and 3. *Both terms, three hours.*

Laboratory fee, \$4.00 a term.

- 5A. Organic Chemistry: special preparations. Elective. *Both terms, laboratory, two hours.*

Laboratory fee, \$6.00.

Professor MANNING and Associate Professor HALL.

Biological Chemistry and Toxicology. This course is designed to give the student laboratory training in organic chemistry and its application to the study of physiological problems. Students will perform a series of experiments bearing more or less directly on problems of metabolism, studying the proteins, carbohydrates, and fats, the digestive

juices and their action, blood, urine, milk, and such tissues as will afford evidence of the general course of metabolic processes. They will prepare as many synthetical compounds illustrating the fundamental laws of organic chemistry as time will permit. The chemical behavior of poisons and their separation is studied in the laboratory. Each student will be required to keep a laboratory notebook. Lectures discussing the theories of physiological Chemistry will be given contemporaneously with the laboratory course. Texts: Autenrieth; Haskins and McLeod. Austin and notes. First year, spring term; second year, fall term.

Laboratory fee, \$5.00 a term.

Physics

Mr. CHRISLER.

- A. Elementary Physics. The fundamental facts of Physics are studied with some special attention to heat and electricity. Text-book, lectures, and laboratory work. *Both terms, three hours.*

Certificates of Physics work done elsewhere than in a college of approved standing will not be accepted in lieu of this course.

Professor PATTERSON.

4. Electricity and Magnetism. A study of the phenomena of electricity and magnetism, and their application in modern life, including the use of the X-rays, the rays of Radium, and other applications in Electrotherapeutics. Laboratory work required. Elective. *Both terms, two hours.*

Zoology

Professor WILSON.

1. General Zoology: an introductory course giving an outline of the classification and structure of animals, with consideration of the fundamentals of histology, embryology, and physiology, and some consideration of biological theories;

lectures with laboratory work. Text: Hertwig. Elective in the first year.

Laboratory fee, \$3.00 a term.

2. Comparative Anatomy of Vertebrates (first half). Dissection of vertebrate types: ascidian, amphioxus, cyclostome, selachian, teleost, reptile, bird, mammal. Text: Hertwig.

Laboratory fee, \$5.00.

Botany

Professor COKEK.

1. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. Elective in the first year.

Microscopic Anatomy

Messrs. SPEIGHT and SLOAN.

This course is divided into three parts as follows:

1. Histology. Stress is laid on the proper conception of the fundamental tissues, which are studied, first in section, and then in fresh or macerated preparations, apart from the consideration of organs.
2. Microscopic Anatomy of Organs (excepting the central nervous system). Sections from all organs are supplied in sufficient number to cover the finer details of structure. Fresh and preserved abattoir matter is furnished along with the sections.

Throughout the course, each student stains and mounts his own sections and is required to make specified drawings and descriptions. By means of prepared slides, loaned to each student, details requiring special technique are shown, such as elastin stains, silver nitrate impregnations, injections, etc. Including some mounts of fresh tissues and blood smears, a minimum of 200 slides is prepared in the

laboratory. Lectures supplement the laboratory work, but a considerable part of this time is devoted to oral and written recitations. The final examination is both written and practical, the latter consisting of two parts, the diagnosis and the written description of slides.

3. **Microscopic Technique.** This portion of the course is given out of schedule hours. Under supervision, each student using several methods of fixation and both celloidin and paraffin imbedding, carries 5 tissues from the raw state to the stained section, which must be approved by the instructor. Reference, Boehm-Davidoff-Huber.

Anatomy

Professor MANGUM, Associate Professor LAWSON, and Mr. WHEELER.

The method of instruction is one of dissection and demonstration supplemented by lectures. Each student is required to dissect one-half of the body under the constant supervision of an instructor, who examines him daily upon the work done. Frequent practical examinations are held upon which stress is laid in order to enforce proper study of the cadaver.

1. In the First Year the lectures and demonstrations proceed by systems. The bones, the articulations, the descriptive anatomy and relations of the viscera are demonstrated to each student. During this year the student dissects one-fourth of the body.
2. In the Second Year the student finishes the dissection of the body and especial stress is laid upon topographical anatomy and the relations of anatomy to surgery. A final examination is held upon the entire subject of anatomy.
3. **Neurology.** Special laboratory study of the gross and microscopic anatomy of the cord and encephalon.
Text: Cunningham or Morris; Cunningham's Manual of Practical Anatomy; Whitehead's Anatomy of the Brain.

4. **Vertebrate Embryology.** The lectures embrace the phenomena of cell division, ovulation and impregnation, and the development of the human body to the end of the foetal stage. In the laboratory the student verifies the facts by the study of organogeny in the chick and in the pig and the foetal membranes in mammals.
Texts: Bailey and Miller; Marshall; Minot's *Laboratory Text*.

Physiology

Professor MANNING.

This course consists of lectures and laboratory work. In the lectures a brief account of general and cell physiology is given as an introduction; then follows a detailed discussion of the facts and theories of human physiology with a brief account of such experiments on the lower animals and such clinical observations and experiments as bear upon the subjects. Contemporaneously with the lectures, a laboratory course is given in which the student learns the methods of experimental physiology and performs such experiments as will demonstrate the more obvious facts. Texts: Howell; Stewart; Porter.

Materia Medica and Pharmacology

Professor MacNIDER.

1. **Materia Medica.** The general consideration of this subject is given in the first year of the medical curriculum. In the second year the important drugs are studied in groups, the classification depending upon their physiological action. Emphasis is given to the most useful preparations of the most important drugs, and their physiological action is studied in detail.
2. **Prescription Writing.** As early as possible in the course the student's attention is directed to the logical application of various drugs to the relief of morbid conditions. Hypothetical conditions are discussed, and each student writes

one or more prescriptions and gives his reason for the use of the various drugs he employs. The prescriptions are discussed and criticised by the students and the instructor.

9. **Pharmacodynamics.** This part of the general course in Pharmacology consists in a careful and accurate study of the action of practically all of the more important drugs on the lower animals. For this work, the higher animals, such as the cat and dog, are chiefly used. The class is divided into groups of two or four, and the experimental work is conducted by the students. Each student is required to hand in to the instructor, at the completion of the course, a laboratory note book containing a detailed account of each experiment, an explanation of the results obtained, and the tracings made during the experiments. Oral and written recitations are frequently held. Text: Wilcox. Pharmacology and Therapeutics. Reference: Sollman, Cushny and Wood.

Pathology

Professor —, assisted by Professor MACNIDER.

1. **Pathological Histology.** General Pathological processes are first studied, followed by the special pathology of the different organs and systems. Each student receives and is required to stain, mount, and study about 250 sections, and to draw or describe those designated by the instructor. In addition, rarer lesions and those requiring special technique are shown by demonstration slides, and at frequent intervals tumors are given out for diagnosis. The list of sections illustrative of general pathology, particularly tumors, is made as complete as practicable, and in special pathology, cardiac and vascular diseases, typhoid fever, and the various forms of pneumonia, of cirrhosis of the liver, and of nephritis, are emphasized. The class is encouraged to study gross appearances in museum material in connection with sections. Oral and written

recitations are held frequently. The examination is both written and practical. Texts: Delafield and Pruden.

Professor MACNIDER and Mr. WYATT.

2. **Bacteriology.** The student learns by practical experience the methods of cultivating, staining, and identifying the principal pathogenic bacteria. A few non-pathogenic and saprophytic forms are studied. The pathological significance of the various forms is explained by lectures, and the pathogenicity of some of the forms is determined by inoculation experiments performed by the class. At intervals during the course unknown organisms are given for identification. In addition to this, each student is required to isolate from the air, water, fecal matter, or pus two organisms and determine their species. The latter part of the course is devoted to the bacteriological study of milk and water. Text: Jordan. Reference: Park and McFarland.

Minor Surgery and Physical Diagnosis

Professor MACNIDER.

The class practices the application of bandages, learns the modern methods of dressing wounds. A short course in Physical Diagnosis is given. Text: Davis on Bandaging.

Pharmacy

Professor HOWELL.

The course in Pharmacy will consist in laboratory work supplemented by lectures. The student will have an opportunity to study the crude drugs and their official prescriptions and doses, and to familiarize himself with pharmaceutical methods in the preparation of official drugs, in writing and compounding prescriptions.

SCHOOL OF PHARMACY

FAACULTY

FRANCIS PRESTON VENABLE, PH.D., D.Sc., LL.D., PRESIDENT.

EDWARD VERNON HOWELL, A.B., PH.G., DEAN.

EDWARD VERNON HOWELL, A.B., PH.G., *Professor of Pharmacy.*

HENRY VAN PETERS WILSON, PH.D., *Professor of Zoology.*

WILLIAM DEBERNIERE MACNIDER, M.D., *Professor of Pharmacology and Bacteriology.*

ISAAC HALL MANNING, M.D., *Professor of Physiology.*

CHARLES HOLMES HENRY, PH.D., *Smith Professor of General and Industrial Chemistry.*

ANDREW HENRY PATTERSON, A.M., *Professor of Physics.*

WILLIAM CHAMBERS COKER, PH.D., *Professor of Botany.*

*ALVIN SAWYER WHEELER, PH.D., *Associate Professor of Organic Chemistry.*

ROBERT ANDERSON HALL, PH.D., *Associate Professor of Organic Chemistry.*

JAMES MUNSIE BELL, PH.D., *Associate Professor of Physical Chemistry.*

JOHN GROVER BEARD, *Instructor in Pharmacy.*

HAMPDEN HILL, S.B., *Instructor in Chemistry.*

VIVIAN LEROY CHRISLER, A.M., *Instructor in Physics.*

THOMAS PALMER NASH, JR., A.B. *Assistant in Chemistry.*

ROBERT LEE HUNTER, *Assistant in Chemistry.*

WILLIAM LEWIS JEFFRIES, A.B., *Assistant in Chemistry.*

WILLIAM AUGUSTUS RUDISILL, A.B., *Assistant in Chemistry.*

LEE FRANKLIN TURLINGTON, A.B., *Assistant in Zoology.*

ORREN WILLIAMS HYMAN, A.B., *Assistant in Zoology.*

JOHN ARCHIBALD MCKAY, *Assistant in Botany.*

*Absent on leave, 1910-1911.

JAMES TALMAGE DOBBINS, *Assistant in Physics.*

ALEXANDER LITTLEJOHN FEILD, *Assistant in Physics.*

GORDON WESLEY THOMPSON, *Assistant in Physics.*

FOUNDATION

The School of Pharmacy was founded in 1897 and was opened for students in September of that year. Its location at the seat of the University assures to the students the most modern scientific instruction with all the laboratory facilities of the undergraduate department, as well as the courses of instruction in allied branches. These opportunities will meet the requirements of a large number of students who were compelled heretofore to obtain their pharmaceutical education in other States. Briefly stated, the advantages are as follows:

1. Thorough, careful, *individual* training.
2. The practical experience derived from active work in the laboratories.
3. Intimate association with the other departments of the University, to all of which the student of pharmacy has access, and the daily contact with students pursuing various branches of learning.
4. The use of the large library and reading room and the well equipped gymnasium.
5. The comparatively small cost at which a two years' course may be obtained.
6. The length of the course, which consists of two sessions of nine months each,—nearly a fourth longer than in many of the colleges of pharmacy.

The success of the students of this school in their examinations before the State boards has been very gratifying. Students of this School have been applicants before the State boards of Maryland, Pennsylvania, and North Carolina. None of the graduates of this School applying for license before State boards has failed to pass the examination.

ADMISSION

Candidates for admission into the School of Pharmacy should present themselves on the same days and at the same hours with candidates for admission into the college. For the next academic year these days will be *Monday, Tuesday, or Wednesday, September 11, 12, or 13, 1911, and Tuesday, or Wednesday, January 2 or 3, 1912*. The session of the School of Pharmacy is of the same length as the College year, beginning *September 11, 1911*, and ending *June 6, 1912*.

Candidates for the degree Ph.G. must be, on entering, at least 17 years old, and must have completed a high school course of study.

The members of the School of Pharmacy enjoy all the privileges extended to other students in the University.

EXPENSES

The charges for each term are payable at the beginning of the term. They are as follows:

Tuition.....	\$30.00
Registration and incidental fees.....	12.50

There are additional fees as follows:

First-year

Chemistry 1 (each term).....	\$1.25
Physics A (each term).....	.50

Second-year

Chemistry 3 (each term).....	\$5.00
Chemistry 10 (spring term).....	5.00
Prescription Course.....	10.00

The students of Pharmacy are entitled to the use of the gymnasium, the library, and reading room, and, in case of sickness, to medical attention and the use of the infirmary.

Good board is furnished at Commons Hall at \$10.00 a month and at the University Inn for \$15.00 a month. The rent of unfurnished rooms ranges from 75 cents to \$2.75 a month. For each

room is made a charge of \$2.00 a month for electric light and heating.

PRIZES

The Bradham Prize, offered by Mr. C. D. Bradham, of New Bern, N. C., will be given to the student making the highest general average during the two years of study.

The Gilpin Langdon prize, offered by Messrs. Gilpin Langdon & Co., of Baltimore, Md., will be given to the student making the best line of preparations in the pharmaceutical laboratory.

Prizes will also be given:

1. For the best thesis.
2. For the best collection of native medicinal herbs.
3. For the best exhibit of chemical salts made by a second year student.
4. For the best work in the recognition of materia medica specimens.
5. To the student recognizing the largest number of pharmaceutical preparations.
6. To the student making the best general average during the first year of study.

EXAMINATIONS

Final examinations are held at the end of each term on the subjects embraced in the course.

Quizzes upon the different branches are held regularly. Specimen quizzes upon Materia Medica, Chemistry, and Pharmacy are held once a week, and consist in the recognition and correct writing of the official names of the specimens presented.

Students are required to make an average of 70 per cent. on all examinations and quizzes.

COURSES LEADING TO THE DEGREE OF GRADUATE OF PHARMACY

In order to be recommended for the degree of Graduate of Pharmacy (Ph.G.) the student must have completed with credit the course of study outlined below. The course extends over

two sessions of nine months each. The student must have completed the work of both sessions in the School of Pharmacy of this University, or of one session (the second) here after one in some other recognized school of Pharmacy. He must obtain satisfactory marking in attendance, making a general average of 70 per cent. in the various branches, and submit a satisfactory thesis. The thesis must be an original essay embodying the results of the student's personal research in some branch of Pharmacy, which he has prosecuted under the direction of the professor who assigned him the subject. The subject of such thesis must be announced on or before February 1 to the Dean of the Faculty. On May 2 the thesis shall be read before the Dean of the School, subject to criticism and correction. The corrected and approved thesis must be handed to the Registrar in typewritten form on or before May 15. It will be published at the discretion of the Dean of the School. He must also have had a practical experience of at least four years with some qualified Pharmacist in a dispensing store. Satisfactory evidence on this point must be submitted to the Dean of the School, and a certificate deposited with the Registrar on before May 15. Students who have not had the full four years' experience will be permitted to stand examinations for graduation; but their diplomas will be withheld until they shall have satisfied this requirement. Of the three years of experience required for license by the State Board of Pharmacy, the work done in the Pharmaceutical laboratory will count for one and only one.

First Year

Pharmacy 1 (5)
Pharmacy 4 (4)
Elementary Physics A (2)
Chemistry 1 (3)

Second Year

Pharmacy 2 (5)
Pharmacy 5 (8)
Materia Medica (5)
Materia Medica and Pharmacology (5)
Chemistry 3 (2)
Chemistry 10, spring term, (3)

COURSES OF INSTRUCTION

Pharmacy

Professor HOWELL.

1. Theory and Practice of Pharmacy. This course consists of lectures upon the following subjects, with practical demonstrations and the employment of proper apparatus whenever necessary; metrology, comminution, heat evaporation, distillation, sublimation; fusion, calcination, granulation, oxidation, reduction, etc.; solution of solid liquids, and gases; deliquescence, efflorescence, etc.; colation, filtration, decolorization, clarification, precipitation, etc.; macration, expression, infusion, decoction, etc.; percolation, and study of the following: waters, syrups, honeys, glycerites, mucilages, mixtures, spirits, elixirs, liniments, collodians, tinctures, wines, vinegars, and fluid extracts. Text: Remington, *Theory and Practice of Pharmacy*. First year. *Both terms, five hours.*
2. Theory and Practice of Pharmacy. The official forms and preparations of drugs are taken up in detail. Beginning with the inorganic compounds, the salts are considered with regard to their commercial qualities and pharmaceutical uses and preparations. The organic compounds are studied, commencing with the salts of the organic acids and passing to the natural and organic compounds. Second year. *Both terms, five hours.*
3. Lectures on Pharmaceutical Botany. This course is preparatory to the study of Materia Medica, and takes up the study of the flower, the various topics of fruits, seeds, etc., and a careful study of the descriptive terms as applied to leaves, stems, and roots. Inspection is given in the gathering and proper mounting of specimens of the official herbs that grow in this vicinity. First year. *Spring term, two hours.*

Professor HOWELL and Mr. BRARD.

4. Operative Pharmacy: a practical course with laboratory work. First year. *Both terms, four hours.*

5. Operative Pharmacy: a continuation of course 4. Second year. *Both terms, two hours.*

Materia Medica and Pharmacology

Professor HOWELL and Mr. BEARD.

1. **Materia Medica.** Lectures on the geographical and botanical sources of drugs; descriptions and uses of the same, together with their preparation and doses. Opportunity is given to the student to familiarize himself with most of the crude drugs and their preparations. Text: White and Wilcox. *Fall term, three hours.*

Professor MACNIDER.

2. **Materia Medica and Pharmacology.** This course is devoted to the study of the origin and constitution of remedial measures, their preparations and doses; and in particular, their physiological action and the indications for their rational use. Opportunity will be given to students to familiarize themselves with the more important crude drugs and their preparations. Instruction is given by means of lectures, recitations and demonstrations. The lectures intended to accompany the work in Toxicology are given as a part of the course in Materia Medica.

Physics

Mr. CHRISLER.

Elementary Physics (Physics A). The fundamental facts of Physics are studied with some special reference to heat and electricity. Text-book, lectures and laboratory work. First year. *Both terms, three hours.*

Certificates of Physics work done elsewhere than in a college of approved standing will not be accepted in lieu of this course.

Chemistry

Professor HERTY and Mr. HALL.

1. **General Descriptive Chemistry.** The elements are studied in a systematic manner. The laws governing their com-

bination, and the compounds resulting, are considered with appropriate reference to their occurrence and relationships to medicine. The latter part of the course is taken up with organic chemistry. Texts: McPherson and Henderson's *Elementary Study of Chemistry*, and Remsen's *Organic Chemistry*, supplemented by lectures and quizzes. First year. *Both terms: lectures, three hours; laboratory, two hours (fall term).*

Associate Professor HALL.

3. Qualitative Analysis. Laboratory work with lectures. The behavior of the elements and their compounds is studied in the laboratory. Practice is given in the analysis of known and unknown mixtures with special reference to the detection of poisons and determination of the purity of drugs. Text: Venable and Wheeler's *Qualitative Chemical Analysis* and the instructor's notes. Second year. *Both terms, two hours.*
10. Organic Chemistry and Toxicology. Practice is given in the preparation of organic compounds and the detection of poisons and the determination of the purity of drugs. *Spring term, three hours.*
Laboratory fee, \$5.00.

OPTIONAL COURSES

The following courses are not required of students in Pharmacy, but may be elected profitably.

Elementary Physiology

Professor MACNIDER.

The study of Physiology is begun in the spring term of the first year, during which the physiology of digestion, the digestive glands, blood, respiration, metabolism, excretion, and animal heat are considered in lectures illustrated by experiments. The study is continued in the fall term of the second year by the consideration of the physiology of

the muscles and of the nervous system. During this term also the student learns the methods of experimental physiology by means of class work in the laboratory. Texts: *American Text Book*, Stewart, or Kirke. *Both terms, three hours.*

Zoology

Professor WILSON.

General Zoology. An introductory course giving an outline of the classification and structure of animals, with consideration of the fundamentals of histology, embryology, and physiology, with some consideration of biological theories; lectures with laboratory work. Text: Hertwig. *Both terms, two hours.*

Botany

Associate Professor COKER.

General Introduction to Systematic Botany, with special attention to medical plants; laboratory and field work with recitations. *Spring term, three hours.*

Chemistry

Professor HERTY.

Industrial Chemistry. Lectures. The application of chemistry to the arts and industries. This course includes metallurgy, glass making, pottery, (*full term*); food, clothing, building materials, explosives, photography, etc., (*spring term*). *Both terms, three hours.*

Agricultural Chemistry. Lectures. This course includes the chemistry of the plant and the soil, and the discussion of plant food, etc. Many specimens have been collected in the Industrial Museum to illustrate this course and the preceding one.

Mr. HILL.

Quantitative Analysis and Assaying. Laboratory work.

This course is intended to give the student a thorough grounding in analytical methods and manipulations. *Three hours.*

Professor HERTY.

Quantitative Analysis. Laboratory work The student in this course is led further into the study and practice of analytical methods. The work may take any special direction desired by him, fitting him to be an agricultural chemist, iron chemist, manufacturing chemist, physician, druggist, or teacher of chemistry. Encouragement is given to the student to make original researches. *Five hours.*

Mr. FRY.

Determinative Mineralogy. Lectures with laboratory work. *Dana's Text-Book of Mineralogy. Both terms, two hours.*

Bacteriology

Professor MACNIDER.

The student learns by practical experience the methods of cultivating, staining, and identifying the principal bacteria, and their pathological significance is explained by lectures and demonstrations by inoculation of animals. In this way the chief pathogenic bacteria are studied in pure culture on the various media, after which the methods of obtaining pure culture from mixtures of bacteria are learned. The necessary manipulations are carried out by the students, who thus obtain a practical knowledge of the subject which can be gained in no other way. *Fall term, six hours.*

Students in Pharmacy have also the privilege of attending any of the regular academic courses.

THE PHARMACEUTICAL LABORATORY

OFFICERS

EDWARD VERNON HOWELL, A.B., Ph.G., Director and *Professor of Pharmacy.*

JOHN GROVER BEARD, Ph.G., *Instructor in the Pharmaceutical Laboratory.*

The rooms of the Pharmaceutical Laboratory are admirably adapted to this purpose. They are conveniently situated on the first floor, are well lighted, and well equipped with water, electric lights, and gas. To each student is assigned a desk, provided with lock and key, and containing all the apparatus necessary for the every day work of the pharmacist. In the store room is kept a supply of materials for practical work, as well as the apparatus for the more complex operations. Ample space is provided for work at the prescription counter, where practical instruction in the compounding and dispensing of prescriptions is given.

A small deposit fee is required to cover the cost of breakage of apparatus. At the end of the session this fee will be returned, less the amount of breakage.

The Pharmacy Department of the University desires to make acknowledgement to the following manufacturers for contributions of various pharmaceuticals and chemicals to be used for display and demonstration work. In order that these exhibits may be properly displayed to the students, a room has been set apart in the Pharmacy building, equipped with suitable cabinets, and in these the specimens are to be kept on permanent exhibition. The contributors are: Fairchild Bros. & Foster, of New York; Hoffman-LaRoche Chemical Works, of New York; H. K. Mulford Company, of Philadelphia; Merck & Company, of New York; Mallinckrodt Chemical Works, of St. Louis; Charles Pfizer & Company, of New York; Powers-Weightman-Rosengarten Company, of Philadelphia; E. R. Squibb & Son, of New York; Sharp & Dohme, of Baltimore; Seabury & Johnson, of New York; Smith, Kline & French Company, of Philadelphia; William R. Warner & Company, of Philadelphia; Eli Lilly & Company, of Indianapolis; Whittall, Tatum & Company, of New York.

OTHER LABORATORIES

The laboratories of Physics, Chemistry, and Biology are open to students in Pharmacy. These laboratories are all equipped

with the most approved apparatus for experimentation and illustration.

READING ROOM AND LIBRARY

The Pharmaceutical School is provided with a well selected library and with a reading room, inaugurated by the class of 1897, in which are filed a large number of medical and pharmaceutical journals.

In addition to these advantages, students of this department enjoy the privileges of the University reading room, in which are filed all the leading newspapers and magazines, and free access to the University Library, which numbers fifty-four thousand volumes and seventeen thousand pamphlets.

THE SUMMER SCHOOL

FAULTY

FRANCIS PRESTON VENABLE, PH.D., D.Sc., LL.D., PRESIDENT.
NATHAN WILSON WALKER, A.B., Director of the Summer School.
Professor of Secondary Education.

GEORGE HOWE, PH.D., *Professor of the Latin Language and Literature.*
NATHAN WILSON WALKER, A.B., *Professor of Secondary Education.*
JOSEPH GREGOIRE de ROULHAC HAMILTON, PH.D., *Alumni Professor of History.*
HARRY WOODBURN CHASE, PH.D., *Professor of the Philosophy of Education.*
THOMAS P. HARRISON, PH.D., *Professor of English in the North Carolina College of Agricultural and Mechanic Arts.*
MARVIN HENDRIX STACY, A.M., *Associate Professor of Civil Engineering.*
LOUIS ROUND WILSON, PH.D., *Associate Professor of Library Administration.*
ADOLPHE VERMONT, A.M., *Instructor in the Romance Languages.*
MARY O. GRAHAM, *Supervising Teacher in the N. C. State Normal and Industrial College.*

GENERAL INFORMATION

The Summer Term: June 5—July 15

The University Summer School for Teachers will open on Monday, June 5, and continue for a term of six weeks, closing on Saturday, July 15. The school will be in session six days each week or thirty-six working days.

Registration

Registration will begin on Monday, June 5. All students of the Summer School are urged to be present and register on this day, as regular class work will begin promptly at 8:45 on Monday morning, June 5. There are certain preliminary arrangements necessary to be made in the way of selecting courses, securing board and lodging, and getting books, which should be attended to before class work begins. It is much better to be on hand promptly so as to begin with the class than to come in a day or two late.

Courses of Instruction

During the summer term of 1911 instruction will be offered in the following subjects: English, Mathematics, History, Latin, German, French, Physics, Educational Psychology, Secondary Education, Primary School Methods, and Library Administration. These courses are designed to meet the needs of the teachers who are striving to fit themselves for better service. The instruction is of the same high character as that of the regular term of the University. There are no fads, frills, shams, or pretenses about it. To the earnest teacher or student who desires to spend a part of his summer in serious, quiet study under the direction of competent instructors, splendid opportunities are offered.

Those Who May Be Benefited

Among those who may be benefited by the Summer School may be mentioned the following classes:

1. Teachers in high schools, and those intending to teach, who desire better general training for their work.
2. Teachers who desire special training in any branches offered. The work will be so graded and arranged that a student can make considerable progress by attending two or three summers in succession.
3. Teachers in elementary schools, or those preparing to teach, who wish to improve their general scholarship, or who wish to study the methods used with primary classes in our best schools.

4. Prospective students of the University who wish to make up deficiencies in their entrance requirements.

5. Teachers who expect to take the State examination in July for either the High School Teacher's Certificate or the Five-Year State Certificate.

Increasing Demand For High School Teachers

The growth of public high schools in North Carolina causes an increasing demand for well-equipped high school teachers and principals. During the past two years the University has had calls for over two hundred men to engage in educational work in this and other Southern States. It has been able to supply barely one-half of that number. The demand for better trained teachers is becoming more and more insistent all over the South, and it means greater opportunity for the teacher who is preparing himself to fill a higher position next year than he filled last. To be able to advance in his profession to even larger fields of usefulness should be the ambition and constant aim of every true teacher. The University is maintaining the Summer School in order that it may better serve the schools by sending into them more efficient teachers, and that it may better serve the teachers by giving them an opportunity to improve their scholarship and thus fit themselves for better work.

Examinations and Certificates

At the close of the term regular examinations will be held, and certificates will be issued upon the satisfactory completion of all courses.

The teachers in the Summer School who wish to apply to the State Board of Examiners for the High School Teacher's Certificate and the Five-Year State Certificate will have an opportunity to review thoroughly the main subjects on which they are to be examined, and then to take the examinations at a time when they should be best able to pass them successfully. Teachers who take either of these examinations may be excused from the regular examinations at the close of the term mentioned in the paragraph above.

The Library

The University Library, containing over 55,000 volumes and over 17,000 pamphlets, will be open daily to the students of the Summer School. Excellent opportunities are here afforded the students for wide reading and special research.

The Gymnasium

All male students of the Summer School will be afforded the privileges of the swimming pool in the gymnasium free of cost.

Board and Lodging

First class board and lodging at the University Inn (formerly Pickard's Hotel) will be offered the students of the Summer School at \$5 a week, or \$25 for the term of six weeks. Good board and lodging can be obtained at the village boarding houses at reasonable rates, varying from \$15 to \$20 per month.

Fees

No tuition fees will be charged teachers or those who are preparing themselves for teaching, but a registration fee of \$3 will be required of all students of the Summer School.

Class Rooms

The classes in English will meet in the English Room, *Old East Building*; the class in Library Administration will meet in the Reading Room, *Library Building*; all others, unless otherwise announced, will meet in *Alumni Hall*, rooms on second floor.

DAILY PROGRAM

I. Chapel Attendance

Chapel exercises will be conducted in Gerrard Hall each morning at 8:30. All Summer School students are expected to attend.

II. Schedule of Recitations

8:45	11:35
Primary Methods 1	French 2
Physics 1	Latin 1
German 1	Math. (Algebra) 1
English 2	

9:45	12:30
English 1	Library Administration
History 2	French 2
German 2	Math. (Geometry) 2
10:40	Secondary Education
Primary Methods 2	Library Hours
Physics 2	9:30 to 12:30
History 1	3:30 to 4:00
Latin 2	

ANNOUNCEMENT OF COURSES

ENGLISH

Professor HARRISON.

1. Grammar and Composition. Especial attention to the analysis of sentences and the application of the principles of grammar in composition. Frequent written exercises will be required, and the written work will be discussed in the classroom. Text-book: Smith's *Our Language—Grammar*. *Six hours a week.*
2. Literature. The literature required for entrance to the leading colleges of the United States will form the basis of this course. Methods of teaching, lectures, reading, and class discussion. *Six hours a week.*

HISTORY

Professor HAMILTON.

1. The History of England. Lectures and assigned readings. Text-book: Walker's *Essentials in English History*. *Six hours a week.*
2. The History of the United States to the close of Reconstruction. Lectures and assigned readings. Text-book: Hart's *Essentials in American History*. *Six hours a week.*

LATIN

Professor Howk.

1. Elementary course. Pronunciation, inflection, syntax of cases and verbs; special study of the subjunctive, indirect discourse, relative and conditional sentences; reading of Caesar's Gallic War. Text-book: Bennett's *Latin Grammar*. Any standard text of Caesar. *Six hours a week.*
2. Course in Vergil's Aeneid, I-VI. Translation and syntax. Text-book: Any standard text of Vergil's Aeneid. *Six hours a week.*
3. Course in Cicero's Orations against Catiline. Translation and syntax. Any standard text of the Orations against Catiline. *Three hours a week.*
4. Latin Composition. *Three hours a week.*

GERMAN

Mr. VERMONT.

1. Elementary course. Grammar. Written exercises. Dictation. Translation. Text-books: Thomas's *German Grammar*; Mosher's *Wilkommen in Deutschland*. *Six hours a week.*
2. Advanced course. Review of Grammar. Composition. Translation. Text-books: Thomas's *German Grammar*; Wesselhoeft's *German Exercises*; Freytag's *Die Journalisten*. *Six hours a week.*

FRENCH

Mr. VERMONT.

1. Elementary course. Grammar. Reading of easy prose. Text books: Joynes's *Minimum French Grammar*; Chateaubriand's *Le Dernier Abencerage*. *Six hours a week.*
2. Advanced course. Reading of novels and dramas. Text-books: Feuillet's *Le Jeune Homme Pauvre*; Hugo's *Hernani*. *Six hours a week.*

MATHEMATICS

Associate Professor STACY.

1. Secondary Algebra. Lectures and assigned work embracing the introductory chapters and including Factoring, Simultaneous Equations, Exponents, Involution and Evolution, Quadratic Equations, etc. Text-book: Fisher and Schwatt's *Secondary Algebra*. *Six hours a week.*
2. Plane Geometry. Lectures and assigned work. Text-book: Wells's *Essentials of Plane and Solid Geometry*. *Six hours a week.*
- 3. Solid Geometry. Lectures and assigned work. Special attention given to the selection of original exercises. Text-book: Wells' *Essentials of Plane and Solid Geometry*.

PHYSICS

Professor DOUGLAS.

1. Elementary course. Mechanics of solids, liquids, and gases. Sound. *Six hours a week.*
 2. Elementary course. Magnetism and electricity. Heat and light. Text-book: Millikan and Gale's *A First Course in Physics*. *Six hours a week.*
- Courses 1 and 2 may be taken together.

LIBRARY ADMINISTRATION

Associate Professor WILSON.

Library administration and methods. Lectures on the organization and management of school and public libraries, book selecting; preparation of bulletins, use of reference books, reading lists, debate helps, technical library methods. Practice in the Library illustrating the details of subjects treated in the lectures. *Six hours a week.*

EDUCATIONAL PSYCHOLOGY

Professor CHASE.

Educational Psychology. Modern psychological principles

and their application to education. Lectures and readings. *Six hours a week.*

SECONDARY EDUCATION

Professor WALKER.

1. High School Organization and Administration: a study of high school curricula and methods. Lectures and assigned readings. DeGarmo's *Principles of Secondary Education* and Brown's *The American High School* will constitute the basis of this course. *Three hours a week.*
2. The Theory and Practice of Teaching. Lectures and assigned readings. This course will be based on James's *Talks to Teachers on Psychology* and Hamilton's *The Recitation*. *Three hours a week.*

ELEMENTARY SCHOOL METHODS

Miss GRAHAM.

1. Model Lessons for Beginners. Model Class work, lectures, and assigned reading. Work with children just beginning school. A class of primary grade children will be organized for the purposes of this course. Lessons in phonics, reading, language work, numbers, nature study, etc., etc., covering the general work of the first grade. *Six hours a week.*
2. Methods and Model Lessons for Grades 2 to 4. Lessons, lectures, and assigned readings, covering the general work of the second, third, and fourth grades. Sight reading, eye training, ear training, drills on the phonograms. Special attention will be given to the reading and language work of these grades. *Six hours a week.*

PUBLIC LECTURES

Each week during the Summer School there will be one or two special lectures to all students. These lectures will be

given by prominent educational workers; they will be upon topics of vital interest to every teacher and will be of genuine help to all.

For further information, apply to the Director of the Summer School, or to Dr. Thomas J. Wilson, Registrar, Chapel Hill, N. C.

STUDENTS IN THE SUMMER SCHOOL (1910)

Abernethy, Dora E.,
 Abernethy, Frances,
 Ainsley, Haywood M.,
 Barbee, C. C.,
 Barker, Gypsie Royal,
 Barrier, J. Kate,
 Beam, M. Speight,
 Beniteau, Elizabeth,
 Bivens, Samuel Robert,
 Bivens, William P.,
 Blount, Mae W.,
 Boyer, Flora McNeill,
 Bullard, M. Louise,
 Carstarphen, Augusta C.,
 Claytor, Margaret,
 Claytor, Robert Hume,
 Cline, Lillian Lee,
 Cobb, Leila M.,
 Cooke, Mary M.,
 Cuthbertson, Lillian,
 Davenport, Aaron W.,
 Davis, R. W.,
 Dixon, Cora M.,
 Donnell, Loula H.,
 Donnell, Mary L.,
 Dowd, James E.,
 Drew, Frank, Jr.,
 Duncan, Joseph Lonzo,
 Durham, Ernest Creecy,
 Ellis, Irma,
 Faires, Rosabelle Simonton,

Chapel Hill.
 Chapel Hill.
 Creswell.
 East Durham.
 Durham.
 Mt. Pleasant.
 Shelby.
 Leaksville.
 Monroe.
 West Durham.
 Chapel Hill.
 Bainbridge, Ga.
 East Durham.
 Roper.
 Chapel Hill.
 Chapel Hill.
 Mt. Pleasant.
 Goldsboro.
 Rich Square.
 Monroe.
 Creswell.
 Durham.
 Goldsboro.
 Chapel Hill.
 Chapel Hill.
 Clio, S. C.
 Live Oak, Fla.
 Clayton.
 Roscoe.
 Cary.
 Chapel Hill.

Fitzgerald, Robert Greeson,
Fordham, Annie L.,
Fowler, Lillie Dow,
Gattis, Elizabeth Burnett,
Gray, Minnie,
Harper, Drew Sugg,
Hart, Gertrude,
Harwood, J. H.,
Henley, Aldris Hurrill,
Herty, Charles Holmes, Jr.,
Herty, Frank,
Hill, W. Ross,
Hodnett, Kent,
Hudson, Martha Amelia,
Hunter, Wade R.,
Jarman, Mary,
Jeffcoat, Cora Pearle,
Jones, Beverly Nicholas,
Jones, Margaret Miriam,
Kilpatrick, Mary K.,
Kornegay, Alma,
Lamus, Patrick B.,
Leighton, Andrew F.,
Leighton, Mrs. Frank,
Link, Lottie May,
Llorens, Francisco,
Lunsford, Blackwell,
Lynch, Rachel Susan,
Lynch, Thomas,
McCullers, Mary Elizabeth,
McGoogan, Mary Smith,
McIntyre, Lutie,
Miller, Herbert Craig,
Moses, Elizabeth,
Nance, Paul H.,
Overton, Annie E.,

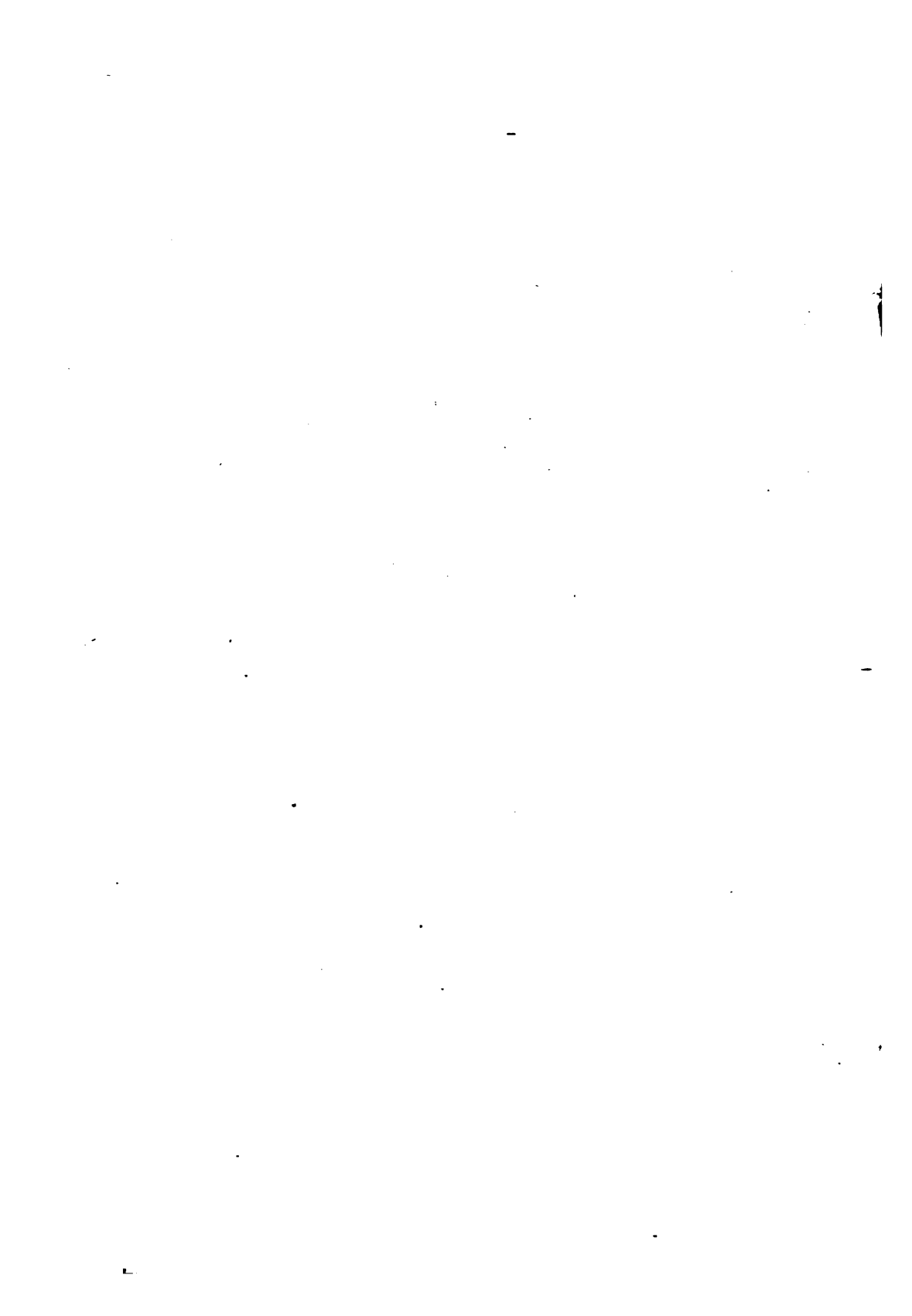
Linwood.
Spencer.
Mebane.
Chapel Hill.
Windsor.
Snow Hill.
Parkton.
Murphy.
Harmony.
Chapel Hill.
Chapel Hill.
Rutherfordton.
Wake Forest.
Smithfield.
Alexander.
Richlands.
Concord.
Walnut Cove.
Durham.
Kinston.
Dover.
Lucama.
Scotland Neck.
Scotland Neck.
Dunn.
Santiago, Cuba.
Rutherford College
Chapel Hill.
Chapel Hill.
Smithfield.
Rennert.
Troy.
Newton.
Chapel Hill.
Winston-Salem.
Elizabeth City.

Pasmore, Julia,
Pegram, Emma,
Pritchard, Maude,
Pritchard, William N.,
Raney, Anna Elizabeth,
Ratcliff, Sallie Luellyn,
Scarboro, Cleopatra,
Scott, Luther Vernon,
Shuford, Norman Clifford,
Simpson, Jennie B.,
Smith, Flora M.,
Smith, Thomas Preston,
Smyre, Clara Rhodes,
Snelson, Sarah,
Speight, Agnes G.,
Suppe, Norman F.,
Sugg, Annie,
Swindell, Myrtle,
Sykes, Mattie,
Sykes, Wiley Arnold,
Taylor, George Frederick,
Temple, Nellie,
Thomas, Sallie Cross,
Upchurch, Ethel,
Wade, Pauline,
Walker, Maggie,
West, Mabel Seth,
Whitley, George T.,
Williams, Joseph A.,
Winston, Duncan Cameron,
Woodall, Hubert Cogdell,
Yoder, Fred Roy,

Cary.
Hope Mills.
Chapel Hill.
Chapel Hill.
Chapel Hill.
Duke.
Eagle Rock.
Siloam.
Fairview.
Elizabeth City.
Duke.
Durham.
Lincolnton.
Lincolnton.
Roper.
Hendersonville.
Chapel Hill.
Belhaven.
Conway.
Conway.
North Wilkesboro.
Chapel Hill.
West Durham.
Apex.
Dunn.
Seven Springs.
Dover.
Smithfield.
Spencer.
Edenton.
Smithfield.
Hickory.

PART FIVE

**THE UNIVERSITY LIBRARY
PUBLIC LECTURES
THE BYNUM GYMNASIUM
LABORATORIES
UNIVERSITY ORGANIZATIONS**



THE UNIVERSITY LIBRARY

OFFICERS

LOUIS ROUND WILSON, PH.D., *Librarian*.
CHARLES LEE RAPER, PH.D., *Committeeman*.
WILLIAM CHAMBERS COKER, PH.D., *Committeeman*.
EDWIN MIMS, PH.D., *Committeeman*.
WILLIAM MORTON DEY, PH.D., *Committeeman*.
RANOLPH ARCHER, *Assistant Librarian*.
FOSTER NUGENT COX, *Assistant in the Library*.
ROBERT WILLIS BOBBITT, *Assistant in the Library*.
WALTER DORSKY BARBER, *Assistant in the Library*.
CLARENCE WALTON JOHNSON, *Assistant in the Library*.
COLUMBUS WASHINGTON EAGLES PITTMAN, *Assistant in the Library*.

The University Library contained at the end of the calendar year 1910 fifty-eight thousand two hundred and twelve volumes and about seventeen thousand six hundred pamphlets. This collection has been largely classified and catalogued according to the Dewey, or decimal system, and its contents have been rendered easily accessible by means of a thorough dictionary card catalogue.

The Library funds are expended under the direction of the Librarian, the Library Committee, and Professors in charge of Departments, with special reference to the instruction given in the University. The annual addition of books from purchase, donations, and exchanges is about thirty-seven hundred volumes, all of which are carefully classified and catalogued as they are received.

The Librarian and those assisting in the Library are in attendance to give help in any line of research or reading. A special collection of reference books is provided for general use in the reference room. At the Librarian's desk are kept complete indexes of the material to be found in the current or bound periodi-

cals. The reading rooms for the students and members of the faculty are supplied with two hundred and thirty-two of the best American and foreign periodicals and leading newspapers of the State and Nation. Brief instruction in the use of the card catalogue, the periodical indexes, and the reference books generally, is given new students at the beginning of the academic year. In addition to the general Library there are a number of departmental libraries and special seminar rooms, which are open to students who work in the departments and have need of special departmental books.

The Library is open on week days from 8:30 A. M. to 1:15 P. M., and from 2:00 P. M. to 5:00 P. M.; on week day evenings, Saturday excepted, from 7:00 P. M. to 9:30 P. M.; on Sunday from 2:30 P. M. to 4:30 P. M.; on University holidays from 3:00 P. M. to 4:00 P. M.

During the year the Library has received the hearty support of the Philanthropic and Dialectic Literary Societies, in recognition of whose long continued interest and generous aid the Library bears the official title, The Library of the University of North Carolina Endowed by the Dialectic and Philanthropic Literary Societies.

The following rules are considered necessary for the proper use of the Library. They will be enforced with strict impartiality.

Subscribers to the Library are the students and members of the faculty.

Other persons who desire to use the Library may become subscribers on payment of the regular Library fee.

The Library fee is four dollars a year, two dollars a term, or fifty cents a month.

Persons who are not subscribers may not borrow books on a subscriber's name.

Not more than three books may be charged to one name at the same time.

Fines for books kept over fourteen days (including the day of issue) will be imposed with exact regularity at the rate of five cents per day. Books borrowed for debate or for class use may

be kept out from 9:00 P. M. until 10 A. M. of the following day. After that hour they are subject to a fine at the rate of five cents per hour. The date on the pocket on fly-leaf of book is sufficient notice when the book is due.

Failure to pay fines within three weeks from time they are due will debar the delinquent from further use of the Library.

Books from the reference room must remain in the Library during Library hours. They may be loaned only at the discretion of the Librarian.

Magazines must not be removed from the Library until they are bound.

Mutilation of books or magazines, or defacement by writing in them, must be paid for by the purchase of a new copy.

Any conversation in the Library, except to obtain books desired, is forbidden.

Continued disregard for any of these rules will cause the offender to forfeit the right to use the Library.

In addition to the gifts made to the University for Library purposes for which the University has made acknowledgement, the Library wishes to acknowledge the gifts of publications from E. S. Abbott, E. G. Acheson, Alabama Department of Archives and History, Mrs. Eben Alexander, C. W. Alvard, American Association for the Advancement of Science, American Bar Association, American Branch of the Association for International Conciliation, American Free Art League, American Historical Association, American Lumberman, American Museum of Natural History, American Peace Conference, Mrs. E. M. Armfield, Association of College and Preparatory Schools of the Southern States, Atlanta Carnegie Library, Audubon Society, K. P. Battle, Boston Public Library, Brotherhood of St. Andrew, California State Library Commission, California University, Canadian Government, Carnegie Foundation, Carnegie Institution, Paul Carus, W. N. C. Clarke, Chemical Laboratory, Chicago Peace Society, Chicago United Charities, Collier Cobb, C. M. Coolidge, Columbia Historical Society, Conference for Education in the South, Conference of Governors, Cornell University, Josephus Daniels, Joseph

Debar, Democratic Campaign Committee, W. B. Dowd, Edwin Durning-Lawrence, A. H. Eller, Maurice Fluegel, E. K. Graham, J. A. Gray, Jr., Guilford Battle Ground Association, W. A. Guthrie, J. G. de R. Hamilton, G. W. F. Harper, K. P. Harrington, F. P. Hawley, M. D. Haywood, Mrs. P. E. Hines, Hispanic Society of America, J. A. Holmes, Mark Hopkins, A. M. Huntington, Illinois State Historical Society, Iowa State Historical Society, Jefferson Physical Laboratory, Johns Hopkins University, D. D. Jones, Kansas State Historical Society, W. R. Kenan, Bartholdt Landfer, Lake Mohonk Conference, Library of Congress, Library of the University of Michigan, London Company, L. P. McGehee, Maine University, Massachusetts Government, Massachusetts State Board of Charities, Merck Publishing Company, Michigan University, J. E. Mills, Edwin Mims, Missouri Botanical Garden, Mrs. E. E. Moffitt, M. H. Morgan, W. S. Myers, National Association of State Universities, National Lumberman, Nebraska State Historical Society, New Jersey State Library, New York Merchants' Association, New York State Library, M. C. S. Noble, North Carolina State Government and Officers, Ohio Society of the Sons of the Revolution, David Parks, A. H. Patterson, Pennsylvania State Historical Society, J. H. Pratt, H. S. Pritchett, G. L. Raymond, Republican Campaign Committee, M. M. Smith, United Confederate Veterans, United States Brewers' Association, United States Superintendent of Public Documents, N. W. Walker, Wisconsin State Government, Wisconsin State Historical Society, Charles Worth, Wyoming State Historical and Geological Society, Yackety Yack Board, Young Men's Christian Association, Advocate of Peace, Alumni Register, American Economist, Central Presbyterian, Charity and Children, Christian Advocate, Gospel Messenger, Hartford Seminary Record, Homiletic Review, Morganton News-Herald, Newton Enterprise, Presbyterian Standard, Progressive Farmer, Raleigh Christian Advocate, Sampson Democrat, Statesville Landmark, Tar Heel, University Magazine, Virginian-Pilot, Webster's Weekly.

THE JOHN CALVIN McNAIR LECTURES

The lecture fund established by the will of John Calvin McNair, of the class of 1849, became available in 1906, and the interest therefrom rendered it possible to begin the lectures in 1908. The honorarium for the lectures amounts to \$500, and the remainder of the interest from the fund provides for the suitable publication of the lectures. Under the will the objects of the lectures "shall be to show the mutual bearing of science and religion upon each other and to prove the existence of attributes (as far as may be) of God and nature."

The lectures for 1908 were delivered by Professor Francis H. Smith, LL.D., of the University of Virginia. The three lectures were:

1. The general theme: God Manifest in the Material Universe.
2. His Attributes as Manifested in Physics.
3. His Attributes as Manifested in Astronomy.

The lectures for 1909 were delivered by President Francis Landey Patton, D. D., LL.D., of Princeton Theological Seminary New Jersey. The four lectures were:

1. The Authority of the Bible.
2. The Authority of the Church.
3. The Authority of Christ.
4. The Authority of the Reason.

The lectures for 1910 were delivered by President David Starr Jordan, Ph.D., M. D., LL.D., of Leland Stanford, Jr. University, California. The lectures were on the theme:

The Stability of Truth.

The lectures for 1911 were delivered by Professor Henry Van Dyke, D. D., LL.D., of Princeton University. The three lectures were:

1. The Poetry of Nature.
2. The Poetry of Patriotism and Humanity.
3. The Poetry of the Unseen World.

THE WILLIAM PRESTON BYNUM, JR. GYMNASIUM

ROBERT BAKER LAWSON, M. D., *Director*.

JAMES RICHARD ALLISON, *Assistant*.

The William Preston Bynum, Jr., Gymnasium, the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893, is a handsome, two-storied brick building, furnished with modern apparatus, swimming pool, baths, lockers, and running track. It contains also the trophy room and the office of the Instructor in Physical Training.

Exercise in the Gymnasium is required three hours a week of all the students in College except Seniors. A thorough physical examination of each student is made in the fall, and, in case students desire it, another in the spring. The measurements are indicated in a Prescription of Exercise pamphlet and are furnished to the students free of charge in the fall term. This book contains directions for the developing of every part of the body, as well as suggestions on hygiene and personal care of the body; it is free from technicalities and confusing terms. Too much importance cannot be attached to the physical examination, since it enables the student to work intelligently and to economize his time. The physical examination is designed to aid the student by pointing out defects, and causing him to direct his efforts toward the correction of them.

LABORATORIES AND MUSEUMS

THE PHYSICAL LABORATORIES

ANDREW HENRY PATTERSON, A.M., *Director and Professor of Physics.*

PARKER HAYWARD DAGGETT, S.B., *Associate Professor of Electrical Engineering.*

VIVIAN LEROY CHRISLER, A.M., *Instructor in Physics.*

JAMES TALMAGE DOBBINS, *Assistant in Physics.*

ALEXANDER LIETLEJOHN FEILD, *Assistant in Physics.*

GORDON WESLEY THOMPSON, *Assistant in Physics.*

The Physical Laboratory occupies the eastern half of the main floor and almost the whole of the basement floor of the Alumni Building, amounting to about eight thousand feet of floorspace.

The main floor is divided into two lecture rooms, an apparatus room, laboratory for students in the general course, Physics 1, and a laboratory for X-ray and photometric work.

In the rooms of the basement are located the dynamos, motors, electrical laboratory, storage battery, and the workshop for wood and metal.

The Physical Laboratory is equipped with standard types of electrical machines: dynamos, motors, transformers, meters, switchboard, storage battery, and the usual accessories, needed for practical instruction in electrical engineering.

The electric light, central heating, and waterworks plants constitute valuable adjuncts to the laboratory. For work in practical testing there are available a 35 H. P. Ball engine, a 20 H. P. slide valve engine, two types of steam pumps, steam siphon, two gasoline engines, with calorimeters, meters, thermometers, and other accessory apparatus necessary for making complete tests on power plants. The central power plant of the University also contains a 115 H. P. Ball and Wood engine, directly connected to a Crocker-Wheeler 3-phase generator; a 70 H. P. Skinner engine with

directly connected General Electric 3-phase generator; a De Laval steam turbine; a D'Oliveir centrifugal pump, and all necessary accessories.

The old storage battery proving inadequate for the growing needs of this and other scientific departments, a new one was installed in September, 1910, consisting of sixty type E 13 cells purchased from the Electric Storage Company, of Philadelphia. This installation provides a direct current of 110 volts available for use at all times, and of any value up to 120 amperes.

CHEMISTRY HALL

CHARLES HOLMES HERTY, PH.D., DIRECTOR and *Smith Professor of General and Industrial Chemistry.*

*ALVIN SAWYER WHEELER, PH.D., *Associate Professor of Organic Chemistry.*

ROBERT ANDERSON HALL, PH.D., *Associate Professor of Organic Chemistry.*

JAMES MUNSIE BELL, PH.D., *Associate Professor of Physical Chemistry.*

HAMPDEN HILL, S.B., *Instructor in Chemistry.*

CHARLES SCOTT VENABLE, A.B., *Fellow in Chemistry.*

ROBERT LEE HUNTER, *Assistant in Chemistry.*

WILLIAM LEWIS JEFFRIES, A.B., *Assistant in Chemistry.*

THOMAS PALMER NASH, JR., *Assistant in Chemistry.*

WILLIAM AUGUSTUS RUDISILL, A.B., *Assistant in Chemistry.*

The overcrowded condition of the laboratories and lecture room in Person Hall and the unsatisfactory ventilation of the laboratories made urgent the need for a larger and better arranged building for the Department of Chemistry. These facts, together with the complete plans for a new building, were laid before the Legislature in 1905 and an appropriation of \$50,000 asked. The appropriation was voted, and in a short while the work of construction was under way.

The new building, Chemistry Hall, is located east of Alumni Hall and north of the New East building, facing west. By the

*Absent on leave, 1910-1911.

selection of this location good water pressure is assured for all of the laboratories in the building.

The outer walls are of salt and pepper brick laid with black mortar.

The main building, 120 x 68 x 48, comprises a first floor, a second floor, and a commodious basement. Adjoining this main building and to the rear of the centre is the lecture room, 41 x 62 x 22.

To the right on entering the main building are the office and the private laboratory of the Director, the department library, and a small lecture room: to the left are the office and private laboratory of the Associate Professor of Organic Chemistry, a large laboratory for organic chemistry, containing locker desks for twenty-four students, and a combustion room.

On the rear or east side of the first floor are the laboratories for quantitative analysis (thirty-two desks), and adjacent fume room, advanced qualitative analysis (twenty-four desks), and technical chemistry (six desks). At each end of the corridor are balance rooms.

On the second floor are the laboratories for general chemistry (sixty-six desks), qualitative analysis (sixty desks), physical chemistry (eight desks), electro-chemistry (eight desks), a research laboratory (sixteen desks), a laboratory for physiological chemistry (forty-eight desks), a fume room, and a small lecture room. At the ends of the corridor on the second floor are a balance room, preparation room, and a dark room for spectroscopic work.

In the basement are the assay laboratory, rooms for gas machine, electric furnace, technical chemistry, constant temperature, a photographic dark room, laboratory and museum for chemical mineralogy, a carpenter-shop, stock room for heavy chemicals, and a large stock room for chemicals and apparatus. From this stock room material is supplied to each floor of the building by an elevator.

Each laboratory is furnished with ample fume closets for the removal of noxious gases, while pivoted window sash insure proper ventilation of the rooms.

The entire building is heated by hot water from the central system of the University.

The main entrance hall leads direct to the lecture room, which is well lighted by high arched windows and has a seating capacity of two hundred, which can be increased somewhat as need requires. To the rear of the lecture room are a preparation room, and a museum for specimens of typical chemicals, mineral, and products illustrating the various phases of chemical industries. Above these two last rooms is a small room for filing charts, diagrams, etc., used in illustrating lectures.

The recently installed storage battery in the Department of Physics furnishes ample current for stereopticon purposes and for motors.

THE BIOLOGICAL LABORATORY

HENRY VAN PETERS WILSON, PH.D., *Director and Professor of Zoology.*

WILLIAM CHAMBERS COKER, PH.D., *Professor of Botany.*

ORREN WILLIAMS HYMAN, A.B., *Assistant in Zoology.*

LEE FRANKLIN TURLINGTON, A.B., *Assistant in Zoology.*

JOHN ARCHIBALD MCKAY, *Assistant in Botany.*

The Biological Laboratory, which bears the name of Davie Hall, is occupied by the Departments of Zoology and Botany. The building is a rectangular structure of pepper and salt brick and is divided into a main body and two wings. The total length is 125 feet, the depth of the main body 44 feet, that of the wings 38 feet. A basement underlies the whole, above which are two floors. The main body has an additional third chamber, which extends out over the wings, forming spacious air chambers. The building faces north and south, lies to the east of the New East, and adjoins the Arboretum.

The entrance hall, on the first floor, lit with large windows on either side of the main doorway, serves for the exhibition of museum specimens of a more popular character. Back of the entrance hall are herbarium, a room for charts and other lecture apparatus, and a room for the storage of zoological specimens.

The east wing of this floor is occupied by a lecture room with a seating capacity of one hundred and twenty, the west wing by a laboratory for the elementary classes in zoology and botany. The latter laboratory is arranged for twenty-four wall tables with window in front of each table.

On the second floor the east wing is occupied by a single large laboratory for advanced work in zoology and the west wing by a similar laboratory for advanced work in botany. Each of these rooms accommodates twenty workers and is lit on three sides with twenty windows. The main building on this floor includes private work rooms for the professors of zoology and botany, two store rooms, and a library. On the third floor of the main body is a photographic studio with windows on the north side extending to the floor, and with sky-lights. The building is provided with electric lights and is heated with hot water. The furnace and fuel rooms are in the basement. Here also are fire proof incubator room, a room for micro-photography with adjoining dark room, janitor's shop, and rooms for the storage of heavy supplies. The wings in the basement are designed for the keeping of live animals and plants and for experimental work in botany and zoology. An elevator connects the basement with all floors.

THE GEOLOGICAL LABORATORY AND MUSEUM

COLLIER COBB, A.M., *DIRECTOR and Professor of Geology and Mineralogy.*

JOSEPH HYDE PRATT, PH.D., *State Geologist and Professor of Economics.*

WILLIAM HENRY FRY, S.B., *Instructor in Geology.*

CHARLES ALEXANDER VOGLEK, *Assistant in Geology.*

The Geological Laboratory occupies the first floor of the new East Building. In addition to a lecture room with a seating capacity of about ninety, there is a large laboratory supplied with working collections of minerals, rocks, and fossils, and with photographs, maps, and models illustrating geological structure. The laboratory is furnished with two petrographical microscopes, with microscopes for soil study, and with apparatus for the slicing and

polishing of rocks. Microscopic slides have been made of most of the specimens from North Carolina; and the department has, also, sections of the typical European rocks. Sections of the rocks around Chapel Hill, and the igneous rocks of the Boston Basin, made by the late Hunter Lee Harris, of the class of 1889, were given to the geological department. There is a room for photographic work.

The University possesses a collection of more than two thousand specimens of building stones, coals, and various products illustrating the economic geology of the State. These are arranged in an exhibition room of six hundred and fifty square feet of floor space. Here also are kept the sections taken with a diamond drill in the coal regions of Pennsylvania, in the region around King's Mountain, where the Summer School of Geology held its sessions, in the Dan River coal fields, and in the Triassic Rocks at Durham, N. C. A complete set of the ores of the precious metals found along the line of the Atchison, Topeka and Santa Fe Railroad is included in the collection. Valuable additions have been made to the collections of fossils also, affording increased opportunity for laboratory work in historical geology and paleontology. A small collection of tertiary type fossils from Florida, the gift of Mr. Joseph Wilcox, of Philadelphia, is the most recent addition to the paleontological collection. The collection illustrating economic geology has been largely increased.

The department library, which occupies a room adjoining the exhibition room, is supplied with State and United States Reports, the papers of working geologists, the best works upon Geology, and scientific periodicals.

UNIVERSITY ORGANIZATIONS

THE DIALECTIC AND PHILANTHROPIC LITERARY SOCIETIES

The Dialectic and Philanthropic Literary Societies were organized in 1795, the year of the opening of the University. Their existence has been inseparably linked with that of the University, and they have shown remarkable power in developing character as well as in training the intellect. They offer facilities for practice in debate, oratory, declamation, and essay writing; and their members become practically familiar with parliamentary law and usage.

Each society owns a large, handsomely furnished hall, the walls of which are hung with oil portraits of illustrious members. Meetings are held by each society every Saturday evening during the college year, admission being confined to members. Public contests in debate between the two societies are conducted twice a week, and in addition to these, there is a system of intercollegiate debates. On Monday evening before Commencement the Inter-Society Banquet is held, after which each society has its annual reunion. On Monday evening preceding Commencement day four representatives elected from the two societies have a public competition in debate, and a prize is awarded to the successful competitors.

By immemorial custom, students from the eastern half of the State usually join the Philanthropic Society, while those from the western half join the Dialectic Society. Although membership in the Societies is entirely optional, yet it is earnestly recommended by the Faculty as furnishing unusual opportunities not only for literary culture, but also for the development of self control and the power to persuade and control others.

ELISHA MITCHELL SCIENTIFIC SOCIETY

MARVIN HENDRIX STACY, A.M., *President.*

PARKER HAYWARD DAGGETT, S.B., *Vice-President.*

FRANCIS PRESTON VENABLE, PH.D., D.Sc., LL.D., *Permanent Secretary and Treasurer.*

ROBERT ANDERSON HALL, PH.D., *Recording Secretary.*

The Elisha Mitchell Scientific Society holds monthly meetings during the college year for the discussion of scientific subjects. A Journal, which is the official organ of the North Carolina Academy of Science, is issued quarterly. The object of the Society is to encourage scientific research and to record such matters as pertain to the natural history of the State. The membership is at present restricted to the faculty and students of the University, and members of the staff of the Geological Survey.

At the monthly meetings, which are ordinarily held on the second Tuesday of each month, excellent opportunities are afforded the students to get beyond the ordinary routine of the class room by hearing, reading, and discussing papers on scientific subjects.

The Journal is in a measure a bulletin of the scientific laboratories of the University, and contains many articles written by research students. It is now in the twenty-sixth year. The volumes already issued contain twenty-five hundred pages. By the exchange of the Journal with more than three hundred scientific journals and periodicals, over ten thousand books and pamphlets have been collected, all of which are arranged in the University Library.

THE NORTH CAROLINA HISTORICAL SOCIETY

JOSEPH GREGOIRE DE ROULHAC HAMILTON, PH.D., *Presiding Professor and Permanent Secretary.*

HENRY MCGILBERT WAGSTAFF, PH.D., *Presiding Professor.*

The North Carolina Historical Society was founded in 1833 by Governor David L. Swain. When Governor Swain became President of the University, the Society was moved from Raleigh to Chapel Hill. Under his leadership it became the centre of his-

torical work in the State and the medium of many notable contributions to the history of the State. On March 22, 1875, through the activity of Kemp Plummer Battle, LL.D., the Society was chartered by an act of the General Assembly. The purpose of the Society is to collect, classify, and publish material illustrative of the history of the State. The Society possesses a valuable collection of books, pamphlets, manuscripts, newspaper files, coins, and other subjects of historic interest. The educational aim of the Society is to create a love for historical study and to give training in scientific methods of historical investigation. To this end meetings are held monthly in the History lecture room, at which papers, based on original research, are read and discussed. All members of the University are eligible for membership.

THE PHILOLOGICAL CLUB

JAMES FINCH ROYSTER, PH.D., *President.*

WILLIAM STANLEY BERNARD, A M., *Vice-President.*

GEORGE MARK SNEATH, *Secretary.*

LOUIS ROUND WILSON, PH.D., *Permanent Secretary and Treasurer.*

The Philological Club meets on the first Tuesday evening of each month during the college year. Its membership consists of the instructors and advanced students in the language departments of the University. The object of the Club is to stimulate original investigation in philology and to afford an opportunity for the interchange of views on subjects relating to such work. At each meeting papers are read and discussed. The Club publishes a journal of two issues a year whose contents are contributed by the members. All persons interested in the work of the Club are invited to attend its meetings.

DER DEUTSCHE VEREIN

PALMER COBB, PH.D., *President.*

The Verein was organized with the view of stimulating interest among the officers and students of the University in all topics pertaining to German life. Weekly meetings are held throughout the

year, at which the German language only is employed. Subjects of general interest pertaining to German literature, history, art, and politics are discussed. An effort is made also to provide students of German with an opportunity to perfect their pronunciation and to improve their control of the spoken language. It is part of the purpose of the Verein to arrange from time to time for public lectures in German. All officers and students of the University interested in the study of German are eligible to membership.

LE CERCLE FRANCAIS

WILLIAM MORTON DEY, PH.D., *President.*

JOHN ARCHIBALD MCKAY, *Vice-President.*

OLIVER TOWLES, A.B., *Permanent Secretary.*

Le Cercle Francais holds weekly meetings at which topics of general interest pertaining to French literature, and French life, manners, and customs are discussed. The French language is employed exclusively. It is the aim of the club to stimulate interest in the French Language, to provide its members with an opportunity to hear idiomatic French spoken, and to use the language with more facility. All officers and students of the University interested in the study of French are eligible to membership.

MUSICAL ASSOCIATION

WILLIAM BURWELL ELLIS, *President.*

MARSHALL B. WYATT, *Vice-President.*

ROBERT S. HANES, *Business Manager.*

JAMES ROWLAND WILDMAN, *Secretary and Treasurer.*

The aim of the Association is to foster the love of music and to afford opportunity of instruction to those interested in music. The organization consists of an orchestra, a brass band, a mandolin and a glee club, which are representative of the musical talent of the University.

THE UNIVERSITY COUNCIL

- W. A. DEKS, *President*, President of the Senior Class.
A. D. FOLGER, *Secretary*, President of the Junior Class.
R. W. SCOTT, President of the Sophomore Class.
G. A. WHEELER, President of the Second Year Medical Class.
F. J. HUNNICUT, President of the Second Year Pharmacy Class.
C. B. RUFFIN, A.B., Representative from the Law Class.
G. W. THOMPSON, (elected by Council) Representative from the Senior Class.
R. G. STOCKTON, Representative from the Student Body at Large.

The University Council is the head of the honor system. It is the concrete expression of the moral University, the student instrument of self-government. Its members being elected of the students by the students, it is grounded upon, and gives expression to, student sentiment. The Council is not an organization of policemen, nor is it based upon a system of espionage. When any student is felt by his fellow students to be unworthy to remain in the University, the Council takes cognizance of this feeling. It examines into the matter, finds the facts in the case, and decides upon the justice of that feeling. If the student is found guilty of conduct unworthy of a University man, he is requested by the Council to leave the University. For example, if it becomes known among the students that a man has been guilty of cheating upon examination he is disgraced in the eyes of the University community; and the students without hesitation, through their organ of expression, the Council, demand that he forthwith leave the University. The student sentiment expresses itself in this way not only in case of so flagrant a violation of the honor system as cheating, but also in cases of continued drunkenness, gambling, and such other forms of misconduct. Thus it can be seen that the student body has an effective system of self-government, that the motive power of this self-government is student sentiment, and that the organ of expression of this sentiment is the University Council.

YOUNG MEN'S CHRISTIAN ASSOCIATION

EDGAR W. TURLINGTON, *President.*

DAVID B. BRYAN, *Vice-President.*

HENRY C. SMITH, *Recording Secretary.*

GEORGE GRAHAM, *Treasurer.*

EDMOND P. HALL, A.B., *General Secretary.*

The University Young Men's Christian Association, with its centrally located House as a meeting place and home for the students; with its work for new students; with its social receptions; with its annually published handbook, directory, calendar; with its lyceum course; with its support of eight Sunday schools; with its self-help department; with its semi-weekly religious meetings; with its ministerial and missionary clubs; with its 352 members; with its 315 men enrolled in mission study; with its 375 men enrolled in Bible study; the Young Men's Christian Association through these channels is an organized agency for usefulness and an aggressive force for morality in the University life.

However, "the Young Men's Christian Association may not be viewed," says a member of the faculty, "merely as an institution for the conduct of mission work, Bible study and religious meetings. Besides these excellent works which it shares with the churches, it is unique as a democratic student organization wholly given up to solving problems of right living. Its energy, sanity, and devotion have made it the most prominent and efficient organization in the college and the most beneficent influence in the life of the college community.

Bible Courses**1. Studies in the Life of Christ (Bosworth)**

Leaders: R. W. Bobbitt, J. D. Boushall, C. K. Burgess, A. L. Feild (Phi Delta Theta Group), F. N. Cox, T. M. Price, C. W. Johnson, E. C. Ward, C. E. Norman, W. F. Taylor, J. G. Walker, L. H. Williams, H. H. Hargrett, (Kappa Alpha Group), W. B. Rodman, Jr., (Alpha Tau Omega Group), Roy T. Brown.

2. Old Testament Characters (White)
Leaders: W. L. Cooper, Jr., E. W. Turlington, Horace Sisk, D. B. Bryan, W. H. Beckerdite (Law Group), F. Witherington (Beta Theta Pi Group), C. L. Keeble (Sigma Nu Group).
3. Life of St. Paul (Leacock)
Leaders: D. L. Rights, J. T. Dobbins, L. F. Turlington, J. L. Eason, H. B. Marrow, T. M. Ramsaur, P. H. Gwynn, I. H. Hughes.
4. Normal Class Leaders: Rev. W. R. Smith, Rev. R. W. Hogue, Dr. Edwin Mims.

Mission Courses

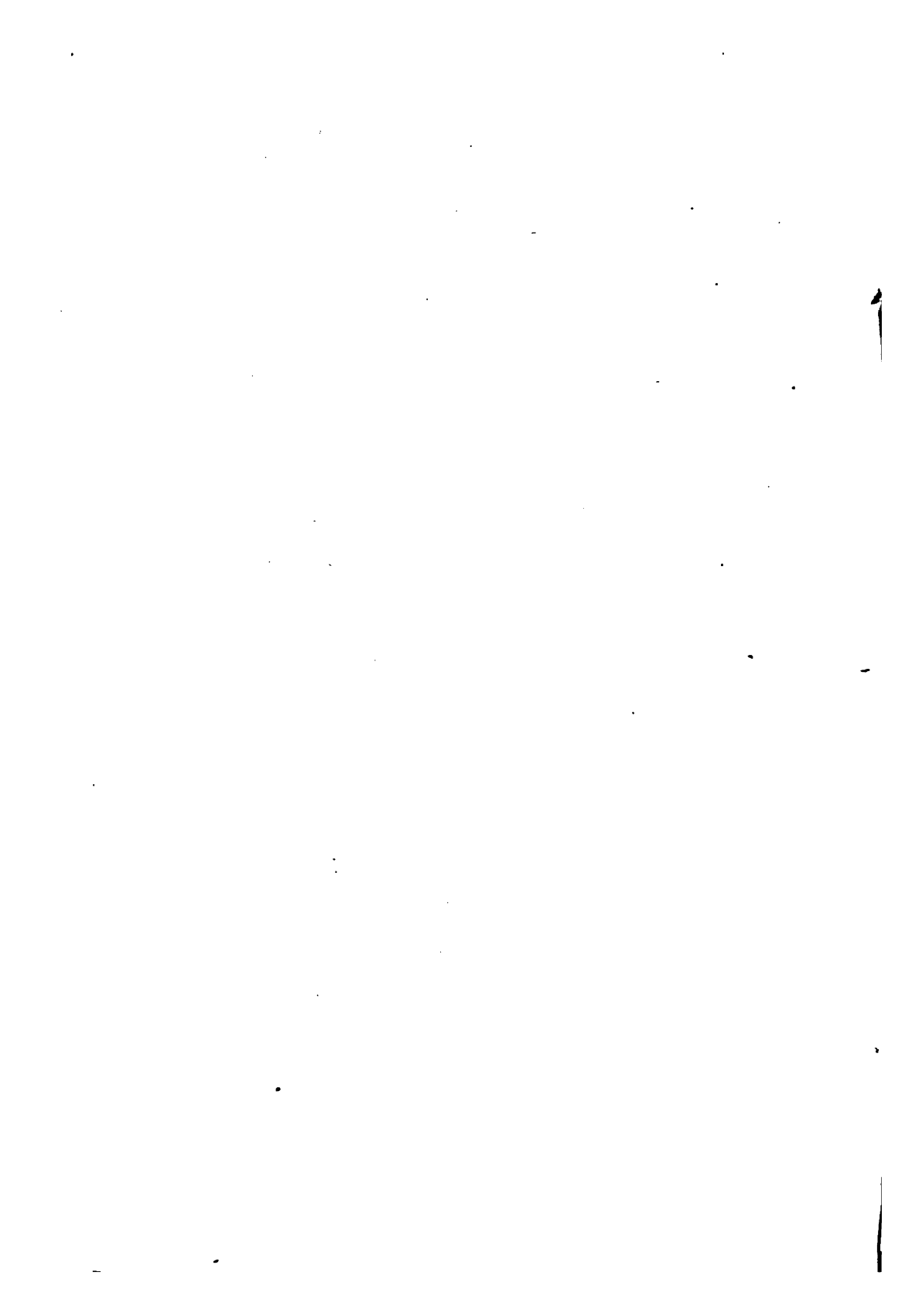
The Decisive Hour of Christian Missions.

The Challenge of the City, by Prof. A. H. Patterson.

The Stewards of the King.

PART SIX

**COMMENCEMENT
LIST OF STUDENTS
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SCHEDULES
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ONE HUNDRED AND FIFTEENTH COM- MENCEMENT

(1910)

SATURDAY, MAY 28

PHI BETA KAPPA ADDRESS

William Lyon Phelps, Ph.D.

SUNDAY, MAY 29

BACCALAUREATE SERMON

The Reverend James Y. Fair, D. D.

SERMON BEFORE THE YOUNG MEN'S CHRISTIAN ASSOCIATION

The Reverend Plato Durham

MONDAY, MAY 30

ALUMNI EXERCISES

Reunions of the classes 1860, 1870, 1885, 1900, 1905

THE DEBATE BY REPRESENTATIVES FROM THE DIALECTIC AND PHIL-
ANTHROPIC LITERARY SOCIETIES

Dialectic

Gordon Wesley Thompson,
Clawson Lee Williams,

Philanthropic

Edgar Willis Turlington,
Walter Frank Taylor.

TUESDAY, MAY 31, COMMENCEMENT DAY

SENIOR SPEAKERS

Langdon Chevis Kerr,
Horace Edney Stacy,

John Heck Boushall,
Joseph Henry Johnston.

THE COMMENCEMENT ADDRESS

Charles Foster Smith, Ph.D.

DEGREES IN COURSE

Bachelors of Arts

Lenoir Thomas Avery,
Michael Seth Beam,
John Heck Boushall,
Levi Ames Brown,
Edwin Wall Bryant,
Sterling Ruffin Carrington,
Samuel Coopersmith,
Harvey Oscar Craver,
James Earl Crosswell,
William Arthur Darden,
Ernest Stanhope DeLaney,
Russell Conway Dellinger,
Robert Drane,
Joseph Daniel Eason, Jr.,
William Rufus Edmonds,
James Alphonso Everett,
John Broadhurst Farrior,
Baxter Lee Fentress,
William Haigler Ferguson,
Edward Lee Franck,
William Henry Fry,
Cecil Clark Garrett,
Adolphus Barte Greenwood,
John Amos Guion,
Oscar Alexander Hamilton,
William Penn Henley,
James Albert Highsmith,
Orren Williams Hyman,
William Lewis Jeffries,
Joseph Henry Johnston,
Ernest Jones,
James Noah Joyner,
Langdon Chevis Kerr,
John Wayne Lasley, Jr.,

John Archable Leitch, Jr.,
Orin Cottrell Lloyd,
Robert Strange McNeill,
Donald Conroy McRae,
Yutaka Minakuchi,
Albert Rufus Morgan,
Thomas Palmer Nash, Jr.
Joseph Robert Nixon,
James Southerland Patterson,
Nixon Sandy Plummer,
William Hoke Ramsaur,
John Mercer Reeves,
Charles Oakley Robinson,
William Blount Rodman, Jr.,
David Bryan Sloan,
William Marvin Snider,
Carroll Baxter Spencer,
Horace Edney Stacy,
Leon Gladstone Stevens,
Samuel Bradley Stroup,
David Lindsay Struthers,
Benjamin Franklin Taylor,
Lewis Nathaniel Taylor,
Dossey Battle Teague,
Samuel Farris Teague,
Hugh Alexander Thompson,
Lee Franklin Turlington,
Richard Alexander Urquhart,
Charles Scott Venable,
John Manning Venable,
Harold VanPelt Vreeland,
Edgar Strickland Welborn,
Ivey Willis,
Adolphus Harrison Wolfe,

Bachelors of Science

Elden Bayley,	Daniel Raymond Kramer,
Louis de Keyser Belden,	Leon McCulloch,
Francisco Virgilio Fuentes,	Marcus Salvador Rodriguez,
David Samuel Harris,	Thomas Duncan Rose,
Daniel McGregor Williams.	

Bachelors of Law

Francis Eugene Hester,	Robert Ney McNeely,
James Franklin Spruill, Ph.B., 1909.	

Graduates in Pharmacy

Henry Moody Gaddy,	Luther Wyatt Richardson,
Miguel Alberto Porro,	Robert Theodore Upchurch, M.D.,
Walter Rodwell White.	

Masters of Arts

Fred Lee Blythe,	Yutaka Minakuchi,
Percy Glyndon Gunter,	Eugene Joseph Newell,
Joseph Isaac Reece.	

Master of Science

Vergil Clayton Pritchett.

Doctors of Medicine

George Speight Barbee,	Charles Fortune Gold,
Mordecai Lee Barefoot,	James Madison Harper,
Arthur Edward Brides,	Joseph Robert Hester,
Alton Cook Campbell,	William Dexter Moser,
Oscar Eason,	Adolfo Bartolome Rodriguez,
William LeRoy Fleming,	Jesse Armed Strickland,
George Wesley Gentry,	Amos Monroe Wooten.

HONORARY DEGREES**Doctors of Laws**

Kemp Plummer Battle,
Julius Isaac Foust,
Edward Joseph Hale,
Thomas Hume,
George Tayloe Winston.

MEDALS, PRIZES, AND FELLOWSHIPS

The William Cain Medal in Mathematics: G. C. Mann.

The Harris Prize in Anatomy: J. P. Jones.

The Eben Alexander Prize in Greek: E. W. Turlington.

The Worth Prize in Philosophy: J. I. Reece.

The Early English Text Society Prize: S. R. Carrington.

The Henry R. Bryan Prize in Law: R. N. McNeely.

Prizes in N. C. Colonial History: 1, J. R. Nixon; 2, S. F. Teague.

The Toch Fellowship in Chemistry: C. S. Venable.

The W. J. Bryan Prize in Political Science: J. D. Eason, Jr.

The Ben Smith Preston Cup: B. D. Stephenson.

The Bingham Prize: E. W. Turlington.

The Mangum Medal: H. E. Stacy.

Elected to membership in the *Phi Beta Kappa Society*, 1910: E.

W. Turlington, A. L. Feild, R. L. Deal, W. A. Dees, W.

T. Joyner, J. A. McKay, G. C. Mann, H. M. Solomon, W.

F. Taylor, G. W. Thompson.

CERTIFICATES

English: L. A. Brown, S. R. Carrington.

French: R. C. Dellinger, O. W. Hyman, J. H. Johnston, R. S. McNeill, A. R. Morgan.

German: L. A. Brown, J. H. Johnston.

Greek: E. S. DeLaney.

History: J. R. Nixon, H. V. P. Vreeland.

Latin: Frank Hough, O. W. Hyman, R. A. Urquhart.

Pedagogy: C. C. Garrett, J. A. Leitch, Jr., O. A. Hamilton.

Zoology: S. Coopersmith, O. W. Hyman, L. F. Turlington.

STUDENTS (1910-1911)

GRADUATES

NAME	YEAR	RESIDENCE
Bivens, William Patterson,	<i>First</i> ,	Durham.
English, Pedagogy, Economics. Candidate for A. M.		
Broadfoot, Thomas Marcellus,	<i>First</i> ,	Honey Grove, Tex.
A. B., 1910, East Texas Normal College. Economics, Philosophy, English. Candidate for A. M.		
Brown, Levi Ames,	<i>First</i> ,	Greenville.
A. B., 1910. English, Philosophy. Candidate for A. M.		
Costner, Jonas McAulay, Jr.,	<i>Second</i> ,	Chapel Hill.
A. B., 1909. Mathematics, Physics. Candidate for A. M.		
Eagles, Theophilus Randolph, Jr.,	<i>First</i> ,	Chapel Hill.
A. B., 1908. Mathematics, Economics, Physics. Candidate for A. M.		
Faires, Rosabelle Simonton,	<i>Second</i> ,	Chapel Hill.
A. M., 1909. German.		
Fonville, Claude Cleveland,	<i>First</i> ,	Burlington.
Ph.B., 1910, Elon College. Economics, History, English. Candidate for A. M.		
Fry, William Henry,	<i>First</i> ,	Chapel Hill.
A. B., 1910. Chemistry, Geology, Mathematics.		
Garrett, Cecil Clark,	<i>First</i> ,	Julian.
A. B., 1910. Economics, Philosophy, English. Candidate for A. M.		
Hathcock, William Henry,	<i>First</i> ,	Albemarle.
Geology, Economics, Chemistry. Candidate for A. M.		
Henry, George Kenneth Grant,	<i>Second</i> ,	Chapel Hill.
A. B., 1900, A. M., 1904, Hamilton College. Latin, French, English. Candidate for Ph.D.		
Hill, Hampden,	<i>First</i> ,	Chapel Hill.
S. B., 1907. Chemistry, Physics. Candidate for S. M.		

- Hogue, Richard Wallace, *Third*, Chapel Hill.
A. B., 1897. University of the South. English. Candidate for Ph.D.
- Hyman, Orren Williams, *First*, Tarboro.
A. B., 1910. Zoology, Botany. Candidate for A. M.
- Jeffries, William Lewis, *First*, Jefferson City, Tenn.
A. B., 1910. Chemistry, Physics, Economics. Candidate for A. M.
- Kitasawa, Shinjiro, *First*, Tokyo, Japan.
A. B., 1910, Waseda University. Economics, English, History. Candidate for A. M.
- Lasley, John Wayne, Jr., *First*, Burlington.
A. B., 1910. Mathematics, Physics, English. Candidate for A. M.
- Lineberger, Abel Clarence, *First*, Gastonia.
A. B., 1909, Lenoir College. English, Zoology, Botany. Candidate for A. M.
- McGoogan, John Archibald, *First*, Shannon.
English, Philosophy, Economics. Candidate for A. M.
- Nash, Thomas Palmer, Jr., *First*, Elizabeth City.
A. B., 1910. Chemistry, Philosophy, English. Candidate for A. M.
- Pritchard, Maude, *First*, Chapel Hill.
A. B., 1909, Elon College. English, German. Pedagogy. Candidate for A. M.
- Royall, William Richard, *Third*, Chapel Hill.
Trinity College. English, Philosophy.
- Venable, Charles Scott, *First*, Chapel Hill.
A. B., 1910. Chemistry, English, Zoology. Candidate for A. M.
- Warren, William Franklin, *First*, Prospect Hill.
A. B., 1910, Elon College. Economics, English, History. Candidate for A. M.
- Welborn, Edgar Strickland, *Second*, Thomasville.
A. B., 1910. Economics, Pedagogy, English. Candidate for A. M.

SENIOR CLASS

- | | | |
|-------------------------|-------|-----------------|
| Alexander, Odom, | Arts, | Charlotte. |
| Allison, James Richard, | Arts, | Davidson River. |
| Barbee, Connie Cazette, | Arts, | East Durham. |

Battle, John Manning,	Arts,	Rocky Mount.
Belk, William Parks,	Arts.	Charlotte.
Bivens, William Patterson,	Arts,	Durham.
Brown, Roy Tilson,	Science,	Erwin, Tenn.
Bryan, Daniel Bunyan,	Arts,	Apex.
Colvard, Joseph Bower,	Arts,	Jefferson.
Cooper, Williamson Lee, Jr.,	Arts,	Graham.
Cowles, Joseph Sanford,	Arts,	Wilkesboro.
Dees, William Archie,	Arts,	Pikeville.
Dickson, Paul,	Arts,	Raeford.
Dobbins, James Talmage,	Arts,	Rockford.
Duls, Ferdinand John,	Arts,	Wilmington.
Eason, Joshua Lawrence,	Arts,	Stantonsburg.
Ellis, William Burwell,	Science,	Winston-Salem.
Feild, Alexander Littlejohn,	Arts,	Raleigh.
George, Wesley Critz,	Arts,	Elkin.
Graham, George,	Arts,	Charlotte.
Guess, William Conrad,	Arts,	Apex.
Gunter, Charles Walker,	Arts,	Sanford.
Halliburton, John Brevard,	Arts,	Charlotte.
Hardison, Osborne Bennett,	Arts,	Fayetteville.
Harris, John Warton,	Arts,	Reidsville.
Hathcock, William Henry,	Arts,	Albemarle.
Horsfield, Margaret Bennett,	Arts,	Oxford.
Hughes, Israel Harding,	Arts,	Chapel Hill.
Hunter, Robert Lee,	Science,	Afton.
Jarman, Mary,	Arts,	Richlands.
Jones, Mary Best,	Arts,	Chapel Hill.
Jones, William Henry,	Arts,	Yanceyville.
Joyner, William Thomas,	Arts,	Raleigh.
Koiner, Junius Spaeth, Jr.,	Science,	Conover.
Lee, Joseph Raymond,	Arts,	Mount Olive.
Leonard, Samuel Leonard,	Arts,	Lexington.
Llorens, Francisco,	Science,	Santiago de Cuba.
Lyon, Henry Wise,	Arts,	Windsor.
McCulloch, Edgar Franklin, Jr.,	Arts,	White Oak.
McGoogan, John Archibald,	Arts,	Shannon.

McIntosh, Charles Eugene,	Arts,	Denver.
McKay, John Archibald,	Arts,	Baie's Creek.
Mann, Grover Carlisle,	Arts,	Scaly.
Mullican, Naaman Spencer,	Arts,	Clemmons.
Oliver, James Frank,	Arts,	Mount Olive.
Palmer, Gus,	Arts,	Gulf.
Rhodes, George Washington,	Arts,	Riverdale.
Roberson, Hoyt,	Arts,	Pollokville. [Cuba]
Rodriguez, Eduardo Francisco,	Science,	Sagua la Grande,
Rudisill, William Augustus,	Science,	Hildebran.
Shields, John Montgomery,	Arts,	Enfield.
Slade, Thomas Bog, Jr.,	Science,	Hamilton.
Small, Walter Lowry,	Arts,	Elizabeth City.
Smith, Richard Raymond,	Science,	Rock Hill, S. C.
Solomon, Harry Meyer,	Arts,	Wilmington.
Stewart, Barney Cleveland,	Arts,	Lancaster, S. C.
Stockton, Richard Gordon,	Arts,	Winston-Salem.
Taylor, Walter Frank,	Arts,	Faison.
Thomas, William Renn,	Arts,	Hiddenite.
Thompson, Cyrus, Jr.,	Arts,	Jacksonville.
Thompson, Gordon Wesley,	Arts,	Spray.
Tillett, John,	Arts,	Charlotte.
Trotter, Benjamin Carter,	Arts,	Reidsville.
Turlington, Edgar Willis,	Arts,	Smithfield.
Vogler, Charles Alexander,	Arts,	Winston-Salem.
Walker, Joseph Gabriel,	Arts,	Graham.
Ward, Eugene Carroll,	Arts,	Waynesville.
Webb, Richard Thompson,	Arts,	Bell Buckle, Tenn.
Whitaker, Lyman Beckwith,	Arts,	Winston-Salem.
Williams, Clawson Lee,	Arts,	Sanford.
Williams, Edward Locke,	Arts,	Greensboro.
Williams, Louis Hicks,	Arts,	Faison.
Williard, Charles Wilson,	Science,	Winston-Salem.
Wilson, Louise Agatha,	Arts,	Waynesville.
Witherington, Isham Faison,	Arts,	Faison.
Wood, John Elliott,	Arts,	Elizabeth City.

JUNIOR CLASS

207

Wyatt, Marshall Boylan, Arts,
Zollicoffer, Algernon Augustus, Arts,
Zollicoffer, Jere Perry, Arts,

Durham.
Henderson.
Henderson.

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JUNIOR CLASS

Atkinson, Alexander Morse, Science,
Bailey, Karl Braswell, Arts,
Barbee, Walter Dorsey, Arts,
Barker, Frank Pendleton, Arts,
Barnhardt, Eugene Columbus, Jr., Arts
Blue, Alexander McNeill, Arts,
Bobbitt, Robert Willis, Arts,
Buchan, Edward Robertson, Arts,
Burgess, Caleb Kight, Arts,
Burgwin, Kenneth Ogden, Arts,
Carter, Walter, Science,
Cates, Clyde Lucius, Arts,
Cheshire, James Webb, Arts,
Claytor, Robert Hume, Arts,
Clingman, John Burton, Science,
Cobb, William Battle, Arts,
Cooke, Charles Spurgeon, Arts,
Cox, Foster Nugent, Arts,
Cox, Richard Benjamin, Arts,
Craven, James Rowland, Arts,
Craver, Henry Cleveland, Arts,
Crutchfield, William Jesse, Arts,
Daniel, James Manly, Jr., Arts,
Dawson, Joseph Green, Arts,
Denton, Beecher Tate, Arts,
Doub, Henry Ward, Arts,
Drane, Frederick Blount, Arts,
Falkener, William White, Arts,
Folger, Alonzo Dillard, Arts,
Freeman, John Webster, Arts,
Freeman, Robert Alexander, Arts,
Gattis, Samuel Malette, Jr., Arts,

Enfield.
Elm City.
Morrisville.
Pembroke, Ky.
Concord.
Carthage.
Henderson.
Manly.
Old Trap.
Pittsburgh, Pa.
Salisbury.
Chapel Hill.
Raleigh.
Chapel Hill.
Winston-Salem.
Chapel Hill.
Charlotte.
Leaksville.
Washington.
Charlotte.
Lexington.
Greensboro.
Denton.
Newbern.
Charlotte.
Tobaccoville.
Edenton.
Warrenton.
Dobson.
Mooresville.
Dobson.
Hillsboro.

Graham, Alexander Hawkins,	Arts,	Hillsboro.
Graham, Augustus Washington, Jr.,	Arts,	Oxford.
Graves, William,	Arts,	Mount Airy.
Gwynn, Price Henderson, Jr.,	Arts,	Leaksville.
Hackney, James Acra,	Arts,	Wilson.
Hall, Roger Baker,	Arts,	Lenoir.
Hanes, Robert March,	Arts,	Winston-Salem.
Hendrix, William Franklin,	Arts,	Unionville.
Henry, Vance,	Arts,	Lilesville.
Higgins, Carlisle,	Arts,	Eunice.
Hodgin, Angus James,	Arts,	Red Springs.
Hooker, Frank Bruce,	Arts,	Greenville.
Hossfeld, Frederick William, Jr.,	Arts,	Morganton.
Hossfeld, William Emil,	Arts,	Morganton.
Hough, Frank,	Arts,	Birmingham, Ala.
Hunter, Fred Caldwell,	Arts,	Newell.
Isley, Blake Elliott,	Arts,	Burlington.
James, Fairley Patterson,	Arts,	Laurinburg.
Johnson, Clarence Walton,	Arts,	Four Oaks.
Johnston, Leslie Newcirk,	Arts,	Wilmington.
Knight, Burke Haywood,	Arts,	Williamston.
Lanier, James Conrad, Jr.,	Arts,	Greenville.
Larkin, John Tyer,	Arts,	Carthage.
Lassiter, Jesse Cleveland,	Arts,	Tobaccoville.
Llorens, Felix Luciano,	Science,	Santiago de Cuba.
Llorens, Tomas Vicente,	Science,	Santiago de Cuba.
Lockhart, John Clegg,	Arts,	Chapel Hill.
Lyon, Brockton Reynolds,	Science,	Greensboro.
McAden, Joel Jenkins,	Arts,	Charlotte.
McLean, Ernest Cobb,	Arts,	Gibsonville.
McLean, Robert Clay,	Science,	Brevard.
Marrow, Henry Burwell,	Arts,	Henderson.
Martin, Herbert Lee,	Science,	Elizabeth City.
Moore, William Peter,	Arts,	Fonta Flora.
Morgan, Lawrence Nelson,	Arts,	Goldsboro.
Morris, James Ward, Jr.,	Arts,	Port Tampa, Fla.
Moser, Ira Cleveland,	Arts,	Rock Creek,

Norman, Clarence Edward,	Arts,	Concord.
Oates, Jack Cotten,	Arts,	Tarboro.
Orr, James Lawrence,	Arts,	Mars Hill.
Padgett, James Absalom,	Science,	Old Fort.
Parish, Henry Lynch, Jr.,	Science,	Hillsboro.
Parker, Robert Hunt,	Arts,	Enfield.
Parsley, William Murdock,	Arts,	Wilmington.
Patterson, Earl Victor,	Arts,	Burlington.
Peele, Rennie,	Arts,	Burgaw.
Phillips, James Dickson,	Arts,	Meredith, Fla.
Pittman, Columbus Washington	Eagles, Arts,	Whitakers.
Price, Thomas Moore,	Arts,	Madison.
Rand, James Hall,	Arts,	Smithfield.
Ray, Hubert Roy,	Arts,	Raleigh.
Reece, Joseph Thaddeus,	Arts,	Yadkinville.
Riggs, Henry Eugene,	Arts,	Dobson.
Roberson, Charles Abram,	Arts,	Robersonville.
Rogers, William White,	Arts,	Timberlake.
Royster, Thomas Sampson,	Arts,	Townsville.
Sloan, Jesse Richardson,	Arts,	Franklin.
Smith, Henry Clark,	Arts,	Charlotte.
Stacy, Lucius Eugene, Jr.,	Arts,	Trinity.
Stephenson, Brevard Doty,	Arts,	Charlotte.
Tanner, Kenneth Spencer,	Arts,	Charlotte.
Teague, Claude Edward,	Arts,	Cameron.
Thompson, Earl Asbury,	Arts,	Mount Holly.
Turnage, David Lee,	Arts,	Farmville.
VanPoole, Robert Linn,	Arts,	Salisbury.
Vogler, Herbert Augustus,	Arts,	Winston-Salem.
Voils, Thaddeus Williams,	Science,	Mooreville.
Wakeley, William Easton,	Science,	Orange, N. J.
Wallace, Fitzhugh Ernest,	Arts,	Kenansville.
Warren, Edgar Poe,	Arts,	Bushy Fork.
Wellons, Elmer James,	Arts,	Smithfield.
West, Noel Elliott,	Arts,	Salemburg.
Wharton, Cyrus Richard,	Arts,	Gibsonville.
Whitaker, John Clarke,	Arts,	Winston-Salem.

White, Moses Andrew,	Arts,	Moorestville.
Whitney, Floyd Gilbert,	Arts,	Bessemer City.
Wildman, James Rowland,	Arts,	Chapel Hill.
Willcox, Edmund Harmon,	Arts,	Carthage.
Winston, Robert Watson, Jr.,	Arts,	Raleigh.
Wood, George Collins,	Arts,	Edenton.

SOPHOMORE CLASS

Alderman, Ernest Hamlin,	Arts,	Greensboro.
Allen, Connor Middleton,	Arts,	Kinston.
Armstrong, Cleaton Otis,	Arts,	Ayden.
Bagwell, James Edgar,	Arts,	Loray.
Barbour, Swade Emmett,	Science,	Clayton.
Basnight, Stein Hughes,	Arts,	Newbern.
Bellamy, Emmett Hargrove,	Arts,	Wilmington.
Bennett, Paul Archer,	Arts,	Winston-Salem.
Bivens, Samuel Robert,	Arts,	Monroe.
Blalock, David Remus,	Arts,	Rougemont.
Blalock, Merritt Edward, Jr.,	Science,	Norwood.
Boushall, Joseph Dozier, Jr.,	Arts,	Raleigh.
Bryan, Paul Roby,	Science,	Goldsboro.
Buchanan, Grant McDonald,	Arts,	Concord.
Buckley, Melville Lincoln,	Science,	Weirsdale, Fla.
Burch, Philip,	Arts,	Sellers, S. C.
Burwell, William Armistead, Jr.,	Science,	Warrenton.
Busby, John Carroll,	Arts,	Salisbury.
Byrd, Willie Talmage,	Arts,	Mount Olive.
Calder, Hugh Courtenay,	Arts,	Wilmington.
Caldwell, Joseph Yongue,	Arts,	Statesville.
Carinichael, George,	Arts,	Wilmington.
Carrington, George Lunsford,	Arts,	Durham.
Carter, Carnie Blake,	Science,	Morganton.
Carter, James Washington,	Arts,	Morganton.
Childs, Wade Hampton,	Arts,	Lincolnton.
Clarke, Wilfong Waldron,	Arts,	Morganton.
Clinard, Jones Weston,	Arts,	Hickory.

Clinard, Walter Bascom,	Arts,	High Point.
Cook, Benjamin Edwards,	Science,	Muskogee, Okla.
Cook, William Jones,	Arts,	Muskogee, Okla.
Cordon, Joseph Palamountain,	Science,	Clayton.
Coulter, Ellis Merton,	Arts,	Connelly Springs.
Coulter, Victor Aldine,	Science,	Newton.
Cowan, Lawrence Haughton,	Arts,	Durham.
Cowell, Charles Fowler,	Arts,	Bayboro.
Craig, Gillam,	Arts,	Monroe.
Davenport, Ralph Warren,	Arts,	Mount Holly.
DeVane, Thomas Ashford,	Arts,	Red Springs.
Ellington, Walter Clink,	Science,	Chapel Hill.
Euleas, Fields Lilborn,	Arts,	Bell Buckle, Tenn.
Fenner, James Paull,	Arts,	Raleigh.
Forney, Welborne Johnson,	Arts,	Greensboro.
Freeman, George Kirby,	Science,	Goldsboro.
Gray, Robert Frederick,	Arts,	Wadesboro.
Grimsley, Harry Barnette,	Arts,	Greensboro.
Gunter, Laughton Bruce,	Arts,	Holly Springs.
Hamilton, Alvah L.,	Arts,	Atlantic.
Hargrett, Haines Hilsman,	Arts,	Sylvester, Ga.
Harris, Elisha Carter,	Arts,	Elizabeth City.
Harry, Woodfin Grady,	Arts,	Grover.
Hatcher, John Thomas,	Arts,	Rose Hill.
Hatcher, Martin Armstead,	Arts,	Snow Hill.
Hedrick, Howell,	Arts,	Taylorsville.
Hemphill, Frederick Herbert,	Science,	Nebo.
Hine, Ira Walter,	Science,	Old Town.
Hobgood, Andrew Jackson, Jr.,	Arts,	Battleboro.
Hoke, Clarence Ballew,	Science,	Lenoir.
Hoover, Troy Jay,	Arts,	High Point.
Howard, Fred Ervin,	Arts,	Monnt Holly.
Huffman, Robert Obediah,	Arts,	Morganton.
Hughes, John Winder,	Arts,	Black Mountain.
Hughes, Thomas Spurgeon,	Arts,	Elizabeth City.
Hunter, John Speight,	Arts,	Greensboro.
Huske, Benjamin Robinson, Jr.,	Arts,	Fayetteville.

Ingram, Mitchell Ray,	Arts,	Taylorsville.
Isley, Robert Waldon,	Arts,	Liberty.
Johnston, Richard Horace,	Arts,	Charlotte.
Johnson, William Harrison,	Arts,	Rutherford.
Jones, William Myers,	Arts,	Charlotte.
Joyner, Elisha Wiley,	Arts,	Nashville.
Jurney, Robert Campbell,	Arts,	Winston-Salem.
Kelly, James Clyde,	Arts,	Carthage.
Kennedy, Frank Hunter,	Arts,	Houstonville.
King, Robert Ruffin, Jr.,	Arts,	Greensboro.
Kirksey, William Albert,	Arts,	Morganton.
Labberton, John Madison,	Science,	Winston-Salem.
Lamb, Luke,	Arts,	Williamston.
Lynch, John Franklin,	Arts,	Burlington.
McCabe, Joseph Levering,	Arts,	Elizabeth City.
McEachern, Archibald McLeod,	Science,	Jacksonville, Fla.
McIver, John Wesley,	Science,	Sanford.
McIver, Monroe Anderson,	Arts,	Gulf.
McKay, Arnold Artemus,	Arts,	Maxton.
McKay, John Archibald,	Science,	Red Springs.
Manning, Horace Lee,	Science,	Wilson.
Marks, Albert Rosenthal,	Arts,	Newbern.
Mason, George Bason,	Arts,	Dallas.
Mebane, Banks Holt,	Arts,	Spray.
Merritt, Rufus Gray,	Arts,	Greensboro.
Morrison, Fred Wilson,	Arts,	Spencer.
Murchison, Bryan Cameron,	Arts,	Charleston, S. C.
Murchison, David Reid,	Arts,	Wilmington.
Norwood, Thomas Hart,	Arts,	Goldsboro.
Overcash, James Oliver, Jr.,	Arts,	Statesville.
Page, Thaddeus Shaw,	Arts,	Biscoe.
Parker, John Lloyd,	Arts,	Ahoskie.
Peele, Thomas Norfleet,	Arts,	Lewiston.
Perrett, Virgil Addison,	Arts,	Whitsett.
Petteway, Hubert Connor,	Arts,	Freeman, Fla.
Phillips, Guy Berryman,	Arts,	Tampa, Fla.
Phillips, Jasper Louis,	Science,	Kinston.

Porter, Andrew Lindsay, Jr.,	Arts,	Rural Retreat, Va.
Post, William Nicholas,	Arts,	Wilmington.
Proctor, Ivan Marriott, Jr.,	Arts,	Raleigh.
Quincy, Cary Perry,	Arts,	Merry Hill.
Ramsaur, Thomas Michael,	Arts,	China Grove.
Rhodes, Leland Brown,	Science,	Chapel Hill.
Richardson, David Carl,	Science,	Beaufort.
Rights, Douglas LeTelle,	Arts,	Winston-Salem.
Ritch, Marvin Lee,	Arts,	Charlotte.
Royster, James Hunt,	Arts,	Townsville.
Sawyer, Roland M.,	Arts,	Elizabeth City.
Scarborough, James Blaine,	Arts,	Mount Gilead.
Scott, Luther Vernon,	Arts,	Siloam.
Scott, Reece Webster,	Arts,	Monroe.
Shamburger, Lacy Lee,	Arts,	Biscoe.
Shofner, Howard Butler,	Arts,	Shelbyville, Tenn.
Siak, Horace,	Arts,	Waco.
Sloan, Robert Rowland,	Arts,	Charlotte.
Smith, Peyton McGuire,	Arts,	Elizabeth City.
Spainhour, Carl Michael,	Arts,	Morganton.
Spears, Marshall Turner,	Arts,	Lillington.
Spencer, Samuel Addison,	Science,	Asheboro.
Stockton, Gilchrist Baker,	Arts,	Jacksonville, Fla.
Stokes, Walter, Jr.,	Arts,	Nashville, Tenn.
Story, Thomas Edgar,	Arts,	Blowing Rock.
Stough, Samuel Tertius,	Arts,	Cornelius.
Strange, Robert, Jr.,	Arts,	Wilmington.
Stubbs, Harry Murden,	Arts,	Williamston.
Swink, Jonas Herman,	Arts,	Woodruff, S. C.
Tillett, William Smith,	Arts,	Charlotte.
Totten, Henry Rowland,	Arts,	Yadkin College.
Townsend, Jackson,	Arts,	Marietta.
Tunis, Charles White,	Science,	Elizabeth City.
Vann, Norman St. George,	Arts,	Charlotte.
Vanstory, Robert McLean,	Arts,	Greensboro.
Walker, Daniel Joshua,	Arts,	Union Ridge.
Weaver, Fleming Roess,	Science,	Greensboro.

Whitfield, Lewis Evander, Science,
 Wiggins, Archibald Lee Manning, Arts,
 Williams, Isham Roland, Arts,
 Wilson, Albert Robert, Jr., Arts,
 Wilson, Carl, Arts,
 Wilson, George Pickett, Arts,
 Woltz, Claude Bernard, Arts,
 Woody, Thomas Brooks, Arts,
 Workman, John Hillary Andrew, Arts,
 Yarboro, John Archibald, Arts,
 Yelverton, Emmor Harrison, Arts,
 Young, William Leslie, Science,

Clinton.
 Durham.
 Faison.
 Greensboro.
 Greenville.
 Soudan, Va.
 Dobson.
 Bethel Hill.
 Cherryville.
 Cary.
 Goldsboro.
 Lexington, Va.
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FRESHMAN CLASS

Abernethy, Lonnie Lee, Science,
 Alexander, Willie Trimigan, Arts,
 Allen, Reynold Tatum, Arts,
 Allred, Joseph Henry, Arts,
 Andrews, Allen Boykin, Arts,
 Andrews, Carlton Austin, Science,
 Andrews, Troy Monroe, Arts,
 Angel, Lewis, Arts,
 Applewhite, Blake Deans, Arts,
 Armfield, Roy Hanes, Arts,
 Askew, Grady Daniel, Arts,
 Aycock, Benjamin Franklin, Arts,
 Ballenger, Richard Edward, Arts,
 Battle, James Wilson, Arts,
 Beam, William Speight, Arts,
 Bell, Reuben Holland, Arts,
 Blackmer, Walter Steele, Jr., Arts,
 Blackstock, Clarence Ernest, Arts,
 Boddie, Claude Lee, Jr., Science,
 Bonner, Octavius Blanchard, Arts,
 Bourne, Henry Clark, Arts,
 Boykin, Robert Stanley, Arts,

Charlotte.
 Creswell.
 Kinston.
 Mount Airy.
 Mount Olive.
 Statesville.
 Chapel Hill.
 Franklin.
 Wilson.
 Greensboro.
 Harrellsville.
 Fremont.
 Tryon.
 Montgomery, Ala.
 Shelby.
 Swan Quarter.
 Salisbury.
 Stocksville.
 Chapel Hill.
 Aurora.
 Tarboro.
 Wilson.

Bright, Oliver Jay,	Arts,	Snowden.
Brooks, Brown Wilson,	Arts,	Unionville.
Burke, James Preston,	Arts,	Bessemer City.
Calmes, James Drayton,	Arts,	Greenville, S. C.
Campbell, Edgar Thomas,	Arts,	Jessama.
Cansler, John Scott,	Arts,	Charlotte.
Carlton, David Hill,	Arts,	Boomer.
Chambers, Joseph Lenoir, Jr.,	Arts,	Charlotte.
Clark, Daniel Russell,	Arts,	Tarboro.
Clark, George Thomas,	Arts,	Wilmington.
Clark, John Astor,	Arts,	Grimesland.
Cobb, Collier, Jr.,	Arts,	Chapel Hill.
Collins, Hubert Walter,	Science,	Holly Springs.
Conroy, Frank Davies,	Science,	Cullowhee.
Cox, Clifford Newton,	Arts,	Ashboro.
Cox, Henry Leon,	Science,	Cullowhee.
Craver, William Everett,	Arts,	Spartanburg, S. C.
Credle, Willie Frontis,	Arts,	Swan Quarter.
Curtis, Thomas, Jr.,	Arts,	McMinnville, Tenn.
Darden, Paul Clifford,	Arts,	Fremont.
Davis, William Henry,	Arts,	Wilson.
Dixon, Minton Hughes, Jr.,	Arts,	Edenton.
Downing, Fred Blair,	Arts,	Carthage.
Drew, Frank, Jr.,	Arts,	Jacksonville, Fla.
Dunnagan, Macon Rush,	Arts,	Yadkinville.
Edwards, Wiley Benjamin,	Science,	Wilson.
Eldridge, James,	Arts,	Dunn.
Eley, Clayton Willard,	Science,	Menola.
Emmett, John Morehead,	Arts,	Oxford.
Fairley, Henry Norden,	Arts,	Monroe.
Feezor, John Gilmer,	Arts,	Silver Hill.
Ferguson, Thomas Wiley,	Arts,	Kendal. [N. Y.]
Flume, Arthur James,	Science,	Palatine Bridge,
Fry, Thomas Albert,	Science,	Fayetteville.
Furgerson, Henry Beauregard, Jr.,	Arts,	Halifax.
Gentry, John Robert,	Arts,	Waynesville.
Gibbs, Cecil Norwood,	Arts,	Lake Landing.

Green, Charles Benjamin,	Arts,	Kittrell.
Green, Cary Jones,	Arts,	Raleigh.
Griffith, Charles Manly, Jr.,	Arts,	Thomasville.
Griffith, Thomas Guion,	Arts,	Charlotte.
Guthrie, Thomas Claiborne, Jr.,	Arts,	Charlotte.
Hackney, Willis Douglass,	Arts,	Wilson.
Hamilton, Joseph William,	Arts,	Atlantic.
Hanes, John Wesley,	Arts,	Winston-Salem.
Hardin, Edward Manning,	Science,	Wilmington.
Harper, Drew Sugg,	Science,	Snow Hill.
Harriss, Wesley,	Arts,	Chapel Hill.
Hart, Meade,	Arts,	Mooreville.
Hartley, Samuel Grady,	Science,	Yadkin College.
Haskett, Charles Warren,	Arts,	Greenville.
Henderson, Leonard Willis,	Arts,	Franklinton.
Herring, George Deems, Jr.,	Arts,	Pikeville.
Higdon, Fred Huffman,	Arts,	Higdonville.
Higdon, Madison Vespuccius,	Arts,	Deets.
Holland, John Culbreth,	Arts,	Fayetteville.
Holland, John Stephen,	Science,	Newbern.
Holmes, John Albert,	Arts,	Mebane.
Holmes, James Eugene,	Arts,	Mebane.
Holmes, Ralph Wendell,	Arts,	Mebane.
Holton, George Ricks,	Arts,	Winston-Salem.
Horton, Joseph Lloyd,	Arts,	Farmville.
Hudson, James Giles,	Arts,	Spencer.
Hummel, Leslie Ray,	Arts,	Goldsboro.
Hunter, DeWitt Talmage,	Arts,	Matthews.
James, Albert Warren,	Arts,	Laurinburg.
Jeffreys, James Talbot,	Arts,	Goldsboro.
Jerome, Vance,	Arts,	Salisbury.
Johnston, Lemuel Ray,	Arts,	Haw River.
Jones, Beverly Nicholas,	Science,	Walnut Cove.
Jones, Harvey Blair,	Arts,	Sanford.
Jones, Lawrence Carpenter,	Arts,	Atlanta, Ga.
Jones, Neil Frazier,	Arts,	Jacksonville, Fla.
Joynes, Andrew, Jr.,	Arts,	Greensboro.

Justus, Keith,	Arts,	Hendersonville.
Kelly, Donald George,	Arts,	Clarkton.
King, John Royston,	Arts,	Pilot Mountain.
Knowles, Daniel Lamont,	Arts,	Mount Olive.
Labberton, Robert Efland,	Science,	Winston-Salem.
Lasley, Robert Law,	Arts,	Wentworth.
Leach, Oscar,	Arts,	Raeford.
Lee, James Grover,	Arts,	Roxboro.
Lee, Joseph Ira,	Arts,	Four Oaks.
Little, Calvin Myers,	Arts,	Charlotte.
Long, Albert Anderson,	Arts,	Farmington.
Long, Henry Cyrus, Jr.,	Arts,	Charlotte.
Long, Willie Jones,	Arts,	Garysburg.
Lord, William Campbell,	Arts,	Wilmington.
McGee, James William, Jr.,	Arts,	Raleigh.
McKay, William Peter,	Science,	Red Springs.
McKnight, Roy Bowman,	Arts,	Charlotte.
McMillan, Benjamin Franklin, Jr.,	Science,	Red Springs.
McMillan, Douglas Moore,	Science,	Red Springs.
McNeely, Martel Prat,	Arts,	Waxhaw.
McWhorter, Davis Lee,	Arts,	Rocky Mount.
Mason, Robert Bruce,	Science,	Durham:
Mease, Hugh,	Arts,	Canton.
Millender, Charles White,	Arts,	Asheville.
Montgomery, Elbert Springs,	Arts,	Charlotte.
Moore, John Samuel,	Arts,	Bethel.
Oates, Malcolm Norval,	Arts,	Charlotte.
Oates, Thomas Frank,	Arts,	Grover.
Oates, William Clyde,	Arts,	Grover.
Owen, Frank Redding,	Arts,	Yadkin College.
Parker, Carl Putnam,	Arts,	Jackson.
Parker, Ezra,	Arts,	Benson.
Parker, Henry Almon,	Arts,	Benson.
Parker, Samuel Iredell,	Arts,	Monroe.
Parker, Walter Rea,	Arts,	Goldsboro.
Pate, James Gibson,	Arts,	Gibson.
Paty, Robert Morris, Jr.,	Arts,	Bell Buckle, Tenn.

Payne, Lewis Banks,	Arts,	Norfolk, Va.
Peace, James Merrill,	Arts,	Oxford.
Pearson, Bayard Preston,	Science,	Apex.
Peel, Elbert Sidney,	Arts,	Williamston.
Pell, Jesse Shepherd,	Arts,	Spartanburg, S.C.
Pember, Howard Stephen,	Science,	Westerly, R. I.
Pendergraph, Henry Austin,	Arts,	Durham.
Perry, Edwin Jerry,	Arts,	Wilson.
Pitt, William Franklin,	Arts,	Elm City.
Pleasants, Harvey McKay,	Science,	Rowland.
Poteat, Joseph William,	Arts,	Marion.
Pratt, Madison Hampton,	Arts,	Madison.
Prevatt, Joseph Robert,	Arts,	Lumberton.
Price, Lemuel Alexander,	Arts,	Unionville.
Pritchard, William Nelson, Jr.,	Science,	Chapel Hill.
Pritchett, James Turner,	Arts,	Lenoir.
Pruitt, William Obediah,	Arts,	Franklinton.
Pugh, Jesse Forbes,	Arts,	Old Trap.
Pulliam, Ralph Collins,	Arts,	Cherokee.
Ramsey, Jacob Sherman,	Science,	Statesville.
Ranson, Lucius Henry,	Arts,	Huntersville.
Ray, Robert Marsh,	Arts,	Oxford.
Reed, Ralph Augustus,	Arts,	Winston-Salem.
Roberson, John Glenn,	Arts,	Greensboro.
Roberts, Jesse Lee,	Arts,	Wentworth.
Robinson, Melvin,	Arts,	Atlantic.
Ross, John Robert,	Arts,	Charlotte.
Schultz, Alfred Mark,	Arts,	Greenville.
Scott, Robert Lee,	Arts,	Greensboro.
Sears, Benjamin Belver,	Science,	Como.
Sherrod, Watson Newberry,	Science,	Enfield.
Shoaf, Royal Grady,	Arts,	Lexington.
Shuford, Norman Clifford,	Arts,	Fairview.
Sinclair, John Frank,	Arts,	Maxton.
Sisk, Hudson Claude,	Arts,	Waco.
Sloan, Harold Thomas,	Arts,	Franklin.
Smith, Edward Warren,	Arts,	Pilot Mountain.

Smith, Junius McRae,	Science,	Charlotte.
Spence, Ralph Case,	Arts,	Kipling.
Spence, Samuel,	Arts,	Kinston.
Spencer, Walter Lee,	Arts,	Fairfield.
Stevens, Ralph Edwin,	Science,	Sanford, Fla.
Stokes, Percy Bethel,	Science,	Ruffin.
Strayhorn, Isaac Richesson,	Arts,	Durham.
Strong, George Vaughan,	Arts,	Raleigh.
Struthers, James Arthur,	Science,	Grist.
Swindell, Lewis Holmes,	Arts,	Swan Quarter.
Tatum, Harry,	Arts,	Mount Olive.
Taylor, Carl Duffy,	Science,	Newbern.
Taylor, John Douglas, Jr.,	Arts,	Wilmington.
Thomas, James Benton,	Arts,	Raeford.
Thompson, Reid,	Arts,	Teer.
Thompson, William Clarke,	Arts,	Lewiston.
Tolson, Henry Albert,	Arts,	Newport.
Townsend, William Bartel,	Arts,	Red Springs.
Tyson, John Grover,	Arts,	Goldsboro.
Walker, John Alfred,	Science,	Germanton.
Ward, Edwin Smithwick,	Science,	Williamston.
Ward, George Hahn,	Arts,	Waynesville.
Watkins, Wilbur Lawrence,	Arts,	Blanch.
Webster, Felix Litaker,	Arts,	Wilkesboro.
Whitaker, William Pell, Jr.,	Arts,	Durham.
Whiting, Seymour Webster, Jr.,	Arts,	Raleigh.
Wilkinson, Reading,	Science,	Port Gibson, Miss.
Willey, Fletcher Copeland,	Arts,	Gates.
Willis, Henry Stuart,	Arts,	High Point.
Winston, Paul Dent,	Arts,	Franklinton.
Woodley, Edgar Swain,	Arts,	Creswell.
Worth, Alexander McAlister,	Arts,	Asheboro.
Young, William Beauregard, Jr.,	Arts,	Wilson.

SPECIAL STUDENTS.

Alford, Wiley Nathan,	Elect. Med.,	Rowland.
Bailey, Isaac Mayo,	Elect. Law,	Smithfield.
Bason, Walter,	Elect. Med.,	Sweptownville.
Bell, Edward Earl,	Elect. Med.,	Polloksville.
Bellois, George William,	Elect. Med.,	Wilmington.
Blair, Merrill William,	Elect. Law,	Wilmington.
Brackett, William Ernest,	Elect. Med.,	Lawndale.
Bradsher, Lawrence Eugene,	Elect. Med.,	Roxboro.
Braswell, James Cornelius, Jr.,	Elect. Med.,	Whitakers.
Brown, Charles Edward,	Elect. Law,	Belcross.
Brownson, Allyn Raymond,	Elect. Med.,	West Asheville.
Burroughs, George Dowell,	Elect. Med.,	Everett.
Cooper, John Albright,	Elect. Med.,	Graham.
Covington, Thomas Thomas, Jr.,	Elect. Med.,	Laurinburg.
Cox, Blaney Williams,	Elect. Med.,	Princeton.
Crumpler, Lawrence Osmond,	Elect. Med.,	Clinton.
Elliott, Forrest,	Elect. Med.,	Shelby.
Evans, Frank Newby,	Elect. Med.,	Fayetteville.
Fearrington, John Bunyan,	Elect. Med.,	Riggsbee.
Finch, Oliver Edwin,	Elect. Med.,	Kittrell.
Foard, Frederick T., Jr.,	Elect. Med.,	Hickory.
Francis, William Gifford,	Elect. Med.,	Waynesville.
Gordon, Donald Henry,	Elect. Finance,	Youngstown, O.
Hill, George Franklin,	Elect. Ministry,	Chocowinity.
House, Wooster Hassell,	Elect. Med.,	Stokes.
Larkin, Ernest Waddell,	Elect. Med.,	Carthage.
Lassiter, Chester Lawrence,	Elect. Med.,	Wilson's Mills.
McAnally, William Fitzgerald,	Elect. Med.,	Madison.
Morrow, Thomas Lacy,	Elect. Med.,	Mebane.
Perrel, David Franklin,	Elect. Med.,	Germantown.
Perry, Hugh Wiston,	Elect. Law,	Mapleville.
Pinner, Carroll Alexander,	Elect. Med.,	Arden.
Roberts, Grady Rudisill,	Elect. Med.,	Lincolnton.
Rogers, David Eugene,	Elect. Med.,	Franklin.
Tolar, Julian Nolley,	Elect. Med.,	Sanford, Fla.
Williams, John Sharpe,	Elect. Med.,	Warsaw.
Williams, Robert Fleet,	Elect. Med.,	Hiddenite.

STUDENTS IN LAW.

Austin, James Allen,	New London.
Baker, Braxton Lloyd,	Paw Creek.
A. B., 1907, Erskine College.	
Battle, Kemp Davis,	Rocky Mount.
A. B., 1909.	
Bauguess, Walter Raleigh,	Jefferson.
Bellamy, Chesley Calhoun,	Wilmington.
A. B., 1909.	
Bennett, Oscar Kimsey,	Waynesville.
Bond, Edward Griffith,	Edenton.
Broadfoot, Charles Wetmore, Jr.,	Fayetteville.
Burgwin, Kenneth Ogden,	Pittsburgh, Pa.
Cansler, Edgar Thomas, Jr.,	Charlotte.
Cappelmann, Frederick William,	Charleston, S. C.
A. B., 1908, Newberry College.	
Carter, Jesse Hollingsworth,	Mount Airy.
B. S., 1909, Davidson College.	
Coughenour, William Chambers, Jr.,	Salisbury.
A. B., 1908.	
Cox, Foster Nugent,	Leaksville.
Currie, Walter Lee,	Jackson Springs.
Davenport, Louis Ludford,	Rocky Mount.
Dockery, Henry Clay, Jr.,	Rockingham.
A. B., 1909, Wake Forest College.	
Edmonds, William Rufus,	Elkin.
A. B., 1910.	
Ellington, Kenneth Raynor,	Clayton.
Graham, Frank Porter,	Charlotte.
A. B., 1909.	
Gudger, Herman Alexander,	Asheville.
Guion, John Amos,	Newbern.
A. B., 1910.	
Haizlip, Porter Thomas,	Leaksville.
Helsbeck, Charles Robert,	Rural Hall.
Hester, Francis Eugene,	Raleigh.
LL.B., 1910.	
Hester, John William,	Hester.
A. B., 1908.	

- Hogue, Cyrus Dunlap,
A. B., 1909, University of the South.
- Hunter, Louis Jones,
B. S., 1906, Muskingum College.
- Jones, Ulysses Simpson,
Keeble, Currin Greaves,
Leary, Herbert Ross,
Lindsay, Raleigh Cabell,
A. B., 1906, Guilford College.
- Long, William Lunsford,
A. B., 1909.
- Lynch, Dozier Addison,
A. B., 1910, Davidson College.
- McBee, Silas, Jr.,
A. B., 1906, University of the South.
- McGowan, William Tilman,
A. B., 1907; S. M., 1908.
- MacLean, John Allan,
McLean, Richard Angus,
McLendon, Lennox Polk,
S. B., 1910, North Carolina College of Agriculture & Mechanic Arts.
- McNairy, Wyatt McCoy,
McRae, Donald Conroy,
A. B., 1909.
- Mears, George Folger,
Milliken, Jesse Fearrington,
Moore, Thomas Enloe,
Murray, Archibald R.,
Newsom, William Luther,
A. M., 1906, Central University.
- Newton, David Zero,
A. B., 1908.
- Nichols, Spencer Van Bokkelen,
Patterson, James Southerland,
A. B., 1910.
- Poisson, Louis Julian,
Powell, Walter Hoge,
Rhodes, William Henry,
- Chapel Hill.
- Charlotte.
- Rockingham.
- Raleigh.
- Edenton.
- Madison
- Garysburg.
- Edgefield, S. C.
- Great Neck, N. Y.
- Swan Quarter.
- Maxton.
- Lumberton.
- Wadesboro.
- Greensboro.
- Chapel Hill.
- Wilmington.
- Pittsboro.
- Webster.
- Burgaw.
- Millen, Ga.
- Shelby.
- Wilmington.
- Chapel Hill.
- Wilmington.
- Whiteville.
- Riverdale.

Robinson, John Moseley, Ph.B., 1907.	Goldsboro.
Robinson, Russell Marable, A. B., 1909.	Goldsboro.
Rodman, William Blount, Jr., A. B., 1910.	Charlotte.
Rogers, Romulus Rufa,	Marshall.
Ruffin, Colin Bradley, A. B., 1909.	Tarboro.
Shields, John Montgomery,	Enfield.
Shore, William Thomas, S. B., 1905.	Charlotte.
Slagle, Edwin Kirkpatrick,	Andrews.
Smith, Clarence James,	Duke.
Smith, Howell Lindsay,	Raleigh.
Solomon, Harry Meyer,	Wilmington.
Spencer, Carroll Baxter, A. B., 1910.	Fairfield.
Spicer, Charles Booker, A. B., 1909.	North Wilkesboro.
Spruill, James Franklin, Ph.B., 1909; LL.B., 1910.	Oriental.
Stacy, Marvin Hendrix, Ph.B., 1902; A. M., 1904.	Chapel Hill.
Stewart, Roach Sidney, Ph.B., 1903.	Lancaster, S. C.
Strange, Robert Wright,	Wilmington.
Sutton, Frederick Isler, A. B., 1908.	Kinston.
Thomas, Francis Edgar, LL.B., 1902, Wake Forest College.	Wadesboro.
Tillett, Charles Walter, Jr., A. B., 1909.	Charlotte.
Tillett, John,	Charlotte.
Uzzell, Thomas Randolph,	Wilson.
Wall, Robert Winfred, S. B., 1909, Weaverville College.	Morganton.
Wallace, Fitzhugh Ernest,	Kenansville.
Ward, William Ira,	Sweptsonville.
Whitley, Henry Ward Beecher,	Monroe.

Whitney, Floyd Gilbert,
 Wiggins, James Middleton,
 Williams, Clawson Lee,
 Williams, Henry Elliott,
 Wilson, George Edward, Jr.,
 B. S., 1910, Davidson College.
 Woltz, Albert Edgar,
 A. M., 1907, Central University.
 Woodard, William Coleman, Jr.,
 A. B., 1908.
 Wyatt, Marshall Boylan,

Bessemer City.
 Jacksonville.
 Sanford.
 Linden.
 Charlotte.

Chapel Hill.

Rocky Mount.

Durham.

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SPECIAL STUDENTS IN LAW.

Beckerdite, William Hugh,
 Cannon, James Ross,
 Capelle, Paul Reese,
 Carpenter, Jesse Earl,
 Clements, Thomas DeWitt,
 Daughtridge, John Clarence,
 Davis, Quinton Clarence, Jr.,
 Dorsett, Henry Grady,
 Douglass, Clyde Augustus,
 Dupree, Franklin Tell,
 Fulton, James Irving,
 Gavin, Edward Lee,
 Hasty, Claude Herndon,
 Johnson, Cyrus Murray,
 McGaskill, Bascom Wentworth,
 Moore, Clayton,
 Patrick, Ralph Clinton,
 Petree, Walter Garfield,
 Reed, Charles Wingate,
 Whitfield, Nathan Fitzhugh Lee,
 Wilkes, James Christopher,
 Willis, George Thomas,

Winston-Salem.
 Concord.
 Rocky Mount.
 Trinity.
 Asheville.
 Rocky Mount.
 Windsor.
 Chapel Hill.
 Raleigh.
 Cardenas.
 Winston-Salem.
 Roseboro.
 Monroe.
 Goldsboro.
 Fayetteville.
 Williamston.
 Gastonia.
 Danbury.
 Washington, D. C.
 Clinton.
 Maxton.
 Newbern.

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STUDENTS IN MEDICINE.

Alexander, Samuel Allen,	Second,	Creswell.
Allison, James Richard,	First,	Davidson River.
Armstrong, Charles Wallace,	First,	Troy.
Bailey, Hubert Jesse,	First,	Apex.
Baynes, Ralph Henry,	First,	Hurdles Mill.
Beavers, John Thomas,	Second,	Durham.
Belk, William Parks,	First,	Charlotte.
Bell, Baxter Israel,	First,	Swan Quarter.
Bender, Ernest Linwood,	First,	Polloksville.
Blalock, Burman Karl,	Second,	Norwood.
Bowdoin, George Edward,	First,	Wilmington.
Boykin, Irvine Manning,	First,	Boykin, S. C.
Brandon, William David Rockwell,	First,	Statesville.
Burleson, William Brown,	First,	Plumtree.
Cocke, Eugene Rankin,	Second,	Asheville.
Drane, Robert,	Second,	Edenton.
A. B., 1910.		
Elder, David Lane,	Second,	Trinity.
English, Ernest Lafayette,	Second,	Faust.
Flowers, Charles Eley,	Second,	Cash Corner.
Floyd, Fred Frits,	First,	Cherokee.
Graul, Frederick Workman,	Second,	Wernersville, Pa.
Harris, Jack Hawley,	Second,	Raleigh.
Hedgpeth, Harry Malcomb,	Second,	Fayetteville.
Hemphill, Clyde Hoke,	Second,	Nebo.
Kendrick, John Fox,	First,	Rock Hill, S. C.
Lackey, Franklin Harris,	First,	Fallston.
Lucas, Philip Edward,	Second,	Currie.
Means, Paul Barringer,	First,	Concord.
Oliver, Adlai Stevenson,	First,	Selma.
Pace, Carl Busbee,	First,	Maxton.
Parrish, Robert Eunice,	First,	Smithfield.
Petree, Paul Augustus,	First,	Germanton.
Ray, Clarence Broadway,	First,	Waynesville.
Ray, Hickman,	First,	Raleigh,

Rodman, Nathaniel Fulford,	First,	Charlotte.
Saunders, Sheldon Asa,	First,	Aulander.
Sloan, David Bryan,	First,	Ingold.
A. B., 1910.		
Speight, James Ambler,	Second,	Whitakers.
Stockdon, Walter Irving,	Second,	Chapel Hill.
Thompeon, Sanford Webb,	Second,	Neuse.
Turlington, Lee Franklin,	First,	Smithfield.
A. B., 1910.		
Venable, John Manning,	First,	Chapel Hill.
A. B., 1910.		
Walker, John Barrett,	First,	Union Ridge.
Warren, Andrew Jackson,	First,	Bushy Fork.
Wheeler, George Alexander,	Second,	Higgins.
Wilkerson, Thaddeus Earl, Jr.,	First,	Roxboro.
Wilkins, John William,	Second,	Rose Hill.
Williams, Louis Hicks,	First,	Faison.
Williams, Lester Lonnie,	Second,	Old Fort.
Withers, George Lee,	Second,	Davidson.
Wyatt, Wortham,	Second,	Wadesboro.
A. B., 1908.		

STUDENTS IN PHARMACY

Anderson, Joseph M.,	First,	Greenville.
Atwater, Garland Marvin,	First,	Oxford.
Barker, Ernest Jerome,	First,	Rowland.
Bennett, Kelly Erwin,	First,	Bryson City.
Blackwelder, George Sumpter,	First,	Hickory.
Browning, Howard Raymond,	First,	Halifax.
Coleman, Henry Grady,	Second,	Silver Street, S. C.
Condrey, James Edward, Jr.,	First,	Enfield.
Cox, Garnett M.,	First,	Lowell.
Davenport, Lee,	Second,	Pactolus.
Fetzer, Frank Goodson,	First,	Wadesboro.
Harrelson, Rosen Cranse,	First,	Tabor.
Harris, Walton Chester Field,	Second,	Hope Mills.
Hesterly, Louis Enlowe,	Second,	Hendersonville.

Hoffman, Joseph Filson,	Second,	High Point.
Hunnicutt, Fabius Jefferson,	Second,	Raleigh.
Jones, Alpheus,	First,	Warrenton.
Jones, Otis Vance,	First,	Swan Quarter.
Marrow, Charles Taylor, Jr.,	First,	Rowland.
Mills, Joseph Asher,	First,	Mount Tabor.
Mills, John William,	First,	Wadesboro.
Moore, John Patrick,	First,	Cary.
Murray, John Edward,	Second,	Durham.
Neeley, Herron,	First,	Charlotte.
Reeves, Lester Abner,	First,	Chapel Hill.
Reins, Charles Cicero,	First,	Wilkesboro.
Rhodes, Cader,	Second,	Jacksonville.
Ross, Jacob Boyd,	First,	Lexington.
Tillett, Ernest Noel,	Second,	Durham.
A. B., 1904, Trinity College; A. M., 1905, Vanderbilt University.		
Waters, George Walter, Jr.,	Second,	Goldsboro.
Webb, Alexander Grady,	First,	Chapel Hill.
Whitehead, Jefferson Davis, Jr.,	First,	Enfield.
Williams, Archibald Hunter A.,	Second,	Oxford.
Zuckerman, Isaac Louis,	Second,	Durham.

ADDENDUM
JUNIOR CLASS

Parker, Samuel Green,	Arts,	Kinston.
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GENERAL SUMMARY

Boards of Government and Instruction and Other Officers

Trustees.....	81
Professors.....	50
Instructors.....	9
Fellows and Assistants.....	25
	<hr/>
Other Officers.....	84
	9

Students

THE COLLEGE:

Senior Class.....	79
Junior Class.....	113
Sophomore Class.....	152
Freshman Class.....	203
Special Students.....	37
	<hr/>
	584

THE GRADUATE SCHOOL.....	25
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THE SCHOOL OF LAW:

Students in Law.....	86
Special Students in Law.....	22
	<hr/>
	108

THE SCHOOL OF MEDICINE:

Second-Year Students.....	21
First-Year Students.....	30
	<hr/>
	51

THE SCHOOL OF PHARMACY:

Second-Year Students.....	12
First-Year Students.....	22
	<hr/>
	34

Total number of students.....	802
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Deduct for names counted twice.....	15
	<hr/>
	787

SUMMARY BY STATES

North Carolina.....	727	Pennsylvania.....	2
South Carolina.....	14	District of Columbia.....	1
Florida.....	11	Japan	1
Tennessee	8	Kentucky.....	1
Virginia.....	4	Rhode Island.....	1
Cuba	4	Mississippi	1
Georgia.....	3	New Jersey.....	1
Alabama.....	2	Ohio.....	1
New York.....	2	Texas	1
Oklahoma	2		

THE ASSOCIATIONS OF THE ALUMNI

THE GENERAL ASSOCIATION

THOMAS STEPHEN KENAN, A. B., *President.*

HENRY ARMAND LONDON, A. B., *Secretary.*

JAMES COLE TAYLOR, B. S., *Recording Secretary.*

The membership includes all persons who have matriculated at the University of North Carolina in any department except the Summer School and all who are or have been officers of the institution.

An effort is now being made to accomplish a more thorough organization of the Alumni. The desire is that the individual alumni shall form into Local Alumni Associations in every community. The Local Associations are to form by proportional representation the General Association of the Alumni. The next meeting of the General Association will be held in Gerrard Hall at the University at the Commencement in June, 1911. Local Associations have been formed in certain cities and others will be established in the course of the year. It is to be hoped that every alumnus will concern himself in assisting the organization in his county or town. A printed statement of the plan of organization has been prepared and will be supplied on request. Inquiries should be directed to Mr. James C. Taylor, Chapel Hill, N. C.

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M. D. Gillam, *Vice-President.*

Francis Gillam, *Secretary and Treasurer.*

IREDELL COUNTY ALUMNI ASSOCIATION, MOORESVILLE, N. C.

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A. L. Starr, *Vice-President*.
A. C. Kerley, *Secretary*.
W. D. Gilmore, *Treasurer*.

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S. C. Chambers, *Secretary*.

CALDWELL COUNTY ALUMNI ASSOCIATION, LENOIR, N. C.

A. A. Kent, *President*.
J. L. Harris, *Secretary*.

WAKE COUNTY ALUMNI ASSOCIATION, RALEIGH, N. C.

Perrin Busbee, *President*.
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J. T. Bridges, *President*.

George Howard, *Vice-President*.

J. T. Johnston, *Secretary*.

	8:30	9:25	9:45	10:40	11:35	12:30	2:30
MON.	A Chem. 7 A Educa'n 8, 4 Eng. 2, II Eng. 5 French A, V Geology 1 German A, I German 1, II Greek A Latin 1, III, VI Math. 1, I, II, VII Math. 5 Physics 6	CHAPEL	B Chem. 2 Chem. 7 B Educat'n 9 Eng. 1, IV Eng. 6 French A, II French 1, I, III German A, IV Greek 2 History 1, I Math. 8A Math. 8 Philos. 4	C Chem. 16 Educat'n 7, 8 Eng. 1, III Eng. 4 French 8 Geology 7 German 8, 7 Greek 1, II Latin 1, I, V Latin 2, I Physics 1, I Physics 7 Pub. Spkg. 1, I Zoology 1	D Chem. 1 Economics 4 Educat'n 5, 6 Eng. 9 French 2 Geology 8 German 8 History 8 Latin 1, IV Math. 1, V, VI Math. 4 Math. 7A	E Drawing 4 Educat'n 1, 2 Eng. 2, IV Eng. 15 French A, IV German A, II Greek 1, I History 1, IV History 7 Latin 1, II Math. 1, III, IV, VIII Math. 2, II Philos. 2	Pub. Spkg. 1, V Laboratory: Chem. 1, I Chem. 4 Chem. 8 Chem. 9 Physics 1, I Physics 4 Zoology 2
	F Botany 2 Chem. 7 Eng. 8 Eng. 8A Eng. 16 Geology 8 German 4, 5 German 6 Greek 8 Greek 10, 5 Latin 1, IV Math. 1, V, VI Physics 4 Pub. Spkg. 2		G Chem. 5 Econom. 2 Eng. 1, II Eng. 2, I, V Eng. 11 French 1, II, IV Geology 4 Germ. A, III Greek 9 Latin 6 Latin 7A, 8 Math. 7 Philos. 1 Physics A	H Chem. 6 Eng. 1, V Eng. 14 French A, III French 4 Greek 6 History 1, II History 8 Latin 2, II, III Ldbr. Admn. Math 10 Physics 1, II Spanish 1 Pub. Spkg. 8	I Econom. 1 Eng. 1, I, Eng. 10 French A, I German 1, I Greek 7 History 1, III Latin 10 Math 2, I Math. 8 Physics 8, 9	K Botany 1 Econom. 8 Educat'n 10, 11 German 2 Greek 1, I History 9 History 11, 6 Latin 1, II Math. 1, III, IV, VIII Math. 11 Pedagogy 5, 6 Philos. 8 Physics 5	Pub. Spkg. 1, IV Laboratory: Botany 1, I Chem. 1, II Chem. 8, I Chem. 8 Drawing 2, 8 Geology 2 Physics 1, II
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SCHEDULE OF EXAMINATIONS

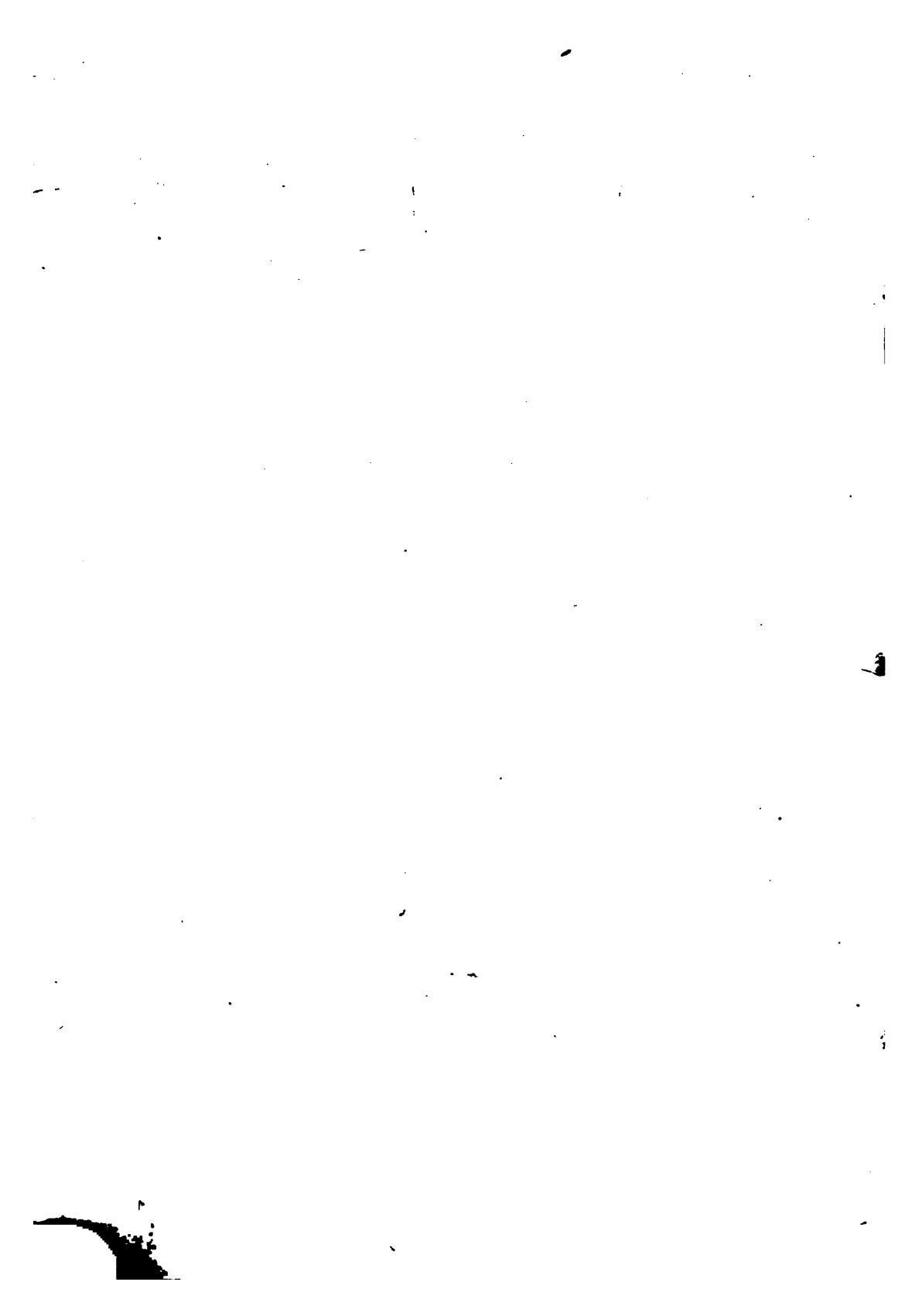
FIRST DAY	SECOND DAY	THIRD DAY	FOURTH DAY	FIFTH DAY
Chemistry 6 English 14 French A French 4 Greek 3 Greek 6 History 1 History 3 Latin 2 Library Adm. Math. 10 Physics 1 Physics 11 Spanish 1 Pub. Spkg 3	Chemistry 5 Chemistry 7 A Chemistry 7 B Economics 2 English 1 English 2 French 1 Geology 4 German A Greek 14 Latin 3 Latin 7, 8 Math. 7 Philosophy 1 Physics A	Economics 1 English 1 English 10 German 1 Greek 7 History 1 Latin 10 Math. 2 Math. 3 Spanish 2	Botany 2 Chemistry 7 English 3 English 11 English 16 Geology 8 German 4, 5 German 6 Greek 5, 10 Physics 4 Pub. Spkg 2	Education 7, 8 English 1 English 4 French 3 Geology 7 German 3, 7 Greek 1 History 4 Latin 2 Math. 3 B Physics 1 Physics 7 Zoology 1
SIXTH DAY	SEVENTH DAY	EIGHTH DAY	NINTH DAY	TENTH DAY
Education 3, 4 English 2 English 5 Geology 1 German A German 1 Greek A Latin 1 Math. 1 Physics 6	Education 1, 2 English 2 French A German A Greek 1 History 7 Math. 1 Math. 2 Philosophy 2 Physics 2 Physics 4 A	Chemistry 2 Education 9 English 6 French A French 1 Geology 6 German A Greek 1 History 1 History 10 Math. 3 A Math. 8 Philosophy 4	Botany 1 Economics 3 Educ'n 10, 11 German 2 History 9 History 11, 6 Latin 1 Philosophy 3 Physics 5 Physics 10	Chemistry 1 Economics 4 Education 5, 6 English 9 French 2 Geology 3 German 8 Greek 4 History 8 Latin 5 Math. 1 Math. 4 Math. 7 A

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UNIV. OF NORTH CAROLINA,

DEC 9 1912

March, 1912 ·

Number 91

THE UNIVERSITY OF NORTH CAROLINA RECORD



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1911-1912

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THE UNIVERSITY OF NORTH CAROLINA

THE ONE HUNDRED AND
SEVENTEENTH SESSION



THE CATALOGUE
1911-1912

THE SEEMAN PRINTERY
DURHAM, N. C.
1912



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CALENDAR

1912

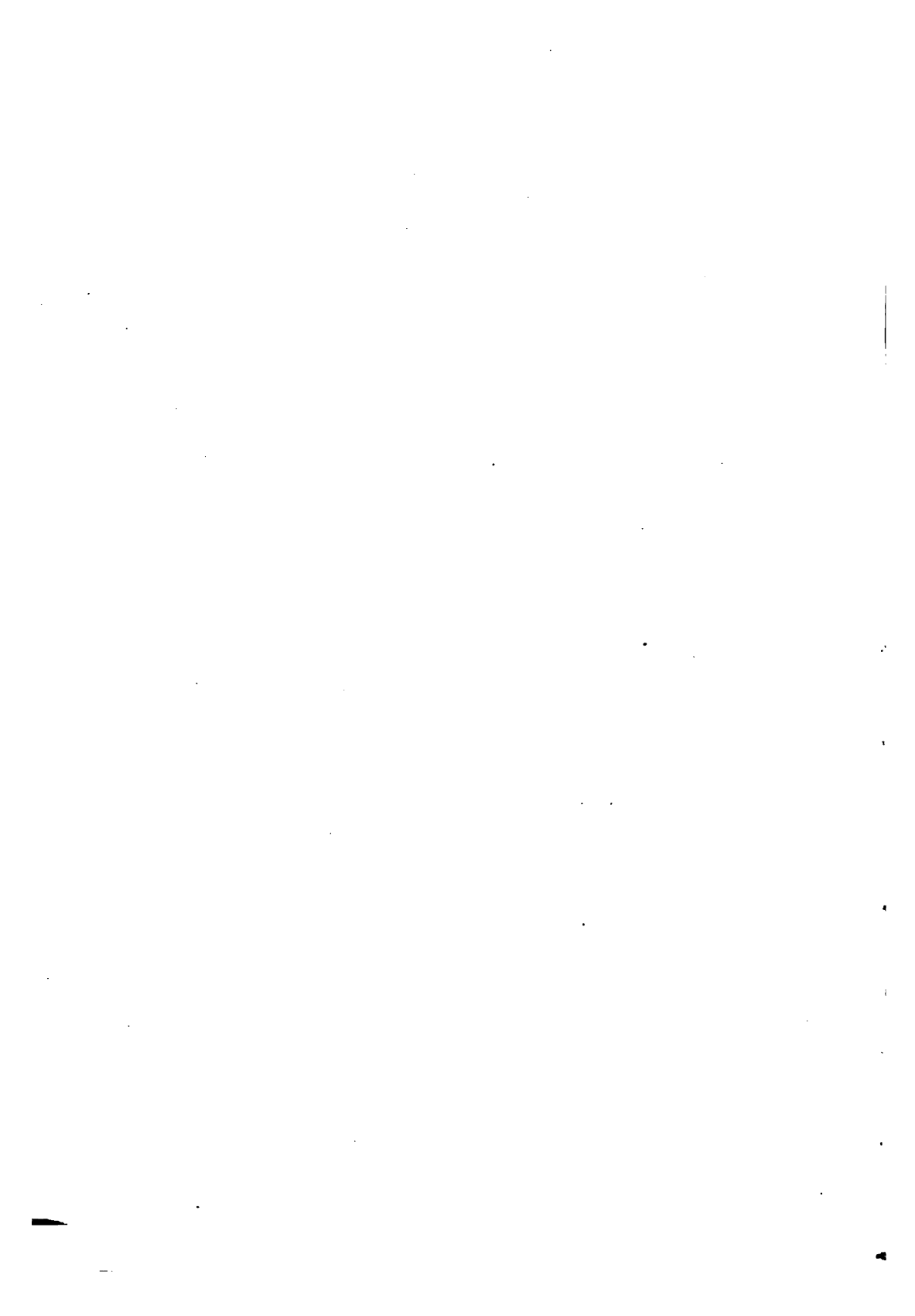
<i>June 10-July 22</i>	Summer Term for Teachers.
<i>June 13-August 23</i>	Summer Law School.
<i>September 4-7</i>	<i>Wednesday to Saturday.</i> Examinations for Removal of Conditions.
<i>September 9-11</i>	<i>Monday to Wednesday.</i> Entrance Examinations. Registration.
<i>September 12</i>	<i>Thursday.</i> Lectures begin.
<i>October 12</i>	<i>Saturday.</i> University Day.
<i>November 28</i>	Thanksgiving Day.
<i>December 20</i>	<i>Friday.</i> Christmas Recess begins.

1913

<i>January 2-3</i>	<i>Thursday and Friday.</i> Registration.
<i>January 4</i>	<i>Saturday.</i> Lectures begin.
<i>January 13-23</i>	Mid-Year Examinations.
<i>January 24</i>	<i>Friday.</i> Lectures begin.
<i>February 22</i>	<i>Saturday.</i> Washington's Birthday.
<i>May 3</i>	<i>Saturday.</i> Selection of Commencement Orators.
<i>May 15</i>	<i>Thursday.</i> Last day for delivery of Graduating Theses at Registrar's Office.
<i>May 20-30</i>	Final Examinations.
<i>May 31</i>	<i>Saturday.</i> Senior Class Day. Inter-Society Banquets and Reunions.
<i>June 1</i>	<i>Sunday.</i> Baccalaureate Sermon. Sermon before the Y. M. C. A.
<i>June 2</i>	<i>Monday.</i> Alumni Day. Meeting of the Board of Trustees. Inter-Society Debate.
<i>June 3</i>	<i>Tuesday.</i> Commencement Day. Summer Vacation begins.
<i>September 3-6</i>	<i>Wednesday to Saturday.</i> Examinations for Removal of Conditions.

PART ONE

**FOUNDATION AND GOVERNMENT
TRUSTEES
FACULTY
COMMITTEES**



THE UNIVERSITY

FOUNDATION AND GOVERNMENT. The University was established in obedience to the first Constitution of the State, which was adopted in December, 1776. A clause of section XLI declared that "all useful learning shall be duly encouraged, and promoted in one or more universities." The charter was granted by the General Assembly in 1789, the cornerstone of the Old East Building was laid in 1793, and the University was opened in 1795.

The title, preamble, and first section of the Act of incorporation are as follows:

"AN ACT TO ESTABLISH A UNIVERSITY IN THIS STATE."

"WHEREAS in all well regulated Governments, it is the indispensable Duty of every Legislature to consult the Happiness of a rising Generation, and endeavor to fit them for an honorable Discharge of the Social Duties of Life, by paying the strictest attention to their Education: And whereas an University supported by permanent Funds, and well endowed, would have the most direct Tendency to answer the above Purpose:

"I. *Be it therefore enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the Authority of the Same, That, Samuel Johnson, James Iredell, Charles Johnson, Hugh Williamson, Stephen Cabarrus, Richard Dobbs Spaight, William Blount, Benjamin Williams, John Sitgreaves, Frederick Hargett, Robert Snead, Archibald Maclaine, Honourable Samuel Ashe, Robert Dixon, Benjamin Smith, Honourable Samuel Spencer, John Hay, James Hogg, Henry William Harrington, William Barry Grove, Reverend Samuel M'Corkle, Adlai Osborne, John Stokes, John Hamilton, Joseph Graham, Honourable John Williams, Thomas Person, Alfred Moore, Alexander Mebane, Joel Lane, Willie Jones, Benjamin Hawkins, John Haywood, senior, John Macon, William Richardson Davie, Joseph Dixon, William Lenoir, Joseph M'Dowell, James Holland and William Porter, Esquires, shall be and they are hereby declared to be a body politic and corporate to be known and distinguished by the name of*

*The Trustees of the University of North Carolina** and by that name shall have perpetual Succession and a common Seal; and that they the Trustees and their Successors, by the Name aforesaid, or a Majority of them, shall be able and capable in Law to take, demand, receive and possess all Monies, Goods and Chattels that shall be given them for the Use of the said University, and the same apply according to the Will of the Donors, and by Gift, Purchase or Devise to take, have, receive, possess, enjoy and retain to them and their Successors forever, any Lands, Rents, Tenements and Hereditaments, of what Kind, Nature or Quality soever the same may be, in special Trust and Confidence that the same or Profits thereof shall be applied to and for the Use and Purpose of establishing the said University."†

The University is governed by a board of trustees elected by the Legislature and is free from sectionalism, sectarianism, or political control. The Governor of the State is *ex-officio* President of the Board of Trustees.

Article IV of the Constitution of 1876 contains the following provisions regarding the University:

"SEC. 6. The General Assembly shall have power to provide for the election of Trustees of the University of North Carolina, in whom, when chosen, shall be vested all the privileges, rights, franchises, and endowments thereof, in anywise granted to or conferred upon the Trustees of said University; and the General Assembly may make such provisions, laws, and regulations from time to time as may be necessary and expedient for the maintenance and management of said University.

"SEC. 7. The General Assembly shall provide that the benefits of the University, as far as practicable, be extended to the youth of the State free of expense for tuition: also all the property which has heretofore accrued to the State, or shall hereafter accrue, from escheats, unclaimed dividends, or distributive shares of the estates of deceased persons, shall be appropriated to the use of the University."

LOCATION. The seat of the University is Chapel Hill, Orange county, twenty-eight miles northwest of Raleigh. Two daily passenger trains run between Chapel Hill and University Junction, a station on the North Carolina Railroad. The site for the institution was selected because of its healthfulness, its freedom from malaria, its supply of pure water, its beautiful scenery, and its central location in the State.

*The corporate name has been changed to The University of North Carolina.

†Laws of the State of North Carolina, published by James Iredell, Edenton, MDCCXCI.

EQUIPMENT. The University campus contains forty-eight acres of land, affording ample grounds for building and for all sorts of athletic sports. The University owns, contiguous to the campus, five hundred acres of forest lands, which are partly laid off in walks and drives. The University has twenty-three buildings.

The South Building contains two lecture rooms and thirty living rooms.

The Old East Building contains two lecture rooms and twenty-eight living rooms.

The Old West Building contains two lecture rooms, the Historical Museum, and twenty-seven living rooms.

Person Hall contains the Medical Laboratories and a lecture room.

Gerrard Hall is used for morning prayers, for mass meetings and other student assemblies, and for public lectures.

Smith Hall contains the Law library and lecture rooms.

The New West Building contains the Dialectic Literary Society's Hall, the Pharmaceutical Laboratory, two lecture rooms and nine living rooms.

The New East Building contains the Philanthropic Literary Society's Hall, the Geological Laboratory and Museum, the offices of the North Carolina Geological Survey, and fourteen living rooms.

Memorial Hall commemorates the illustrious dead of the University. It is used at Commencement for public exercises.

The Alumni Hall contains the offices of administration, the Physical Laboratories, and ten lecture rooms.

The Carr Building, the gift of Gen. J. S. Carr, contains forty-two living rooms for dormitory use.

The Mary Ann Smith Building contains forty living rooms for dormitory use.

The William Preston Bynum, Jr., Gymnasium is the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893. It is furnished with modern apparatus, swimming pool, baths, lockers, and running track; and contains a trophy room and the office of the Instructor in Physical Training.

The Young Men's Christian Association Building, recently

completed, gives greater efficiency to the valuable work already being done by the Association.

Chemistry Hall contains Chemical Laboratories, lecture rooms, offices for the instructors, and store rooms.

The new *Library* building, given by Andrew Carnegie, Esq., has now been in use for four years.

Davie Hall, the Biological Laboratory, contains laboratories and lecture rooms for zoology and botany.

Caldwell Hall, just completed, is used exclusively by the Schools of Medicine and Pharmacy, and contains laboratories, lecture rooms, dissecting rooms, and offices for the instructors.

The Dissecting Hall is a new, well arranged building for the use of the Medical School, and is apart from the other buildings.

The New Infirmary, a spacious and completely equipped building, was thrown open to the students at the beginning of the session before last.

Commons contains a dining hall where students obtain board at ten dollars a month. The whole enterprise was made possible through the beneficence of Mrs. Frederick Baker, of New York.

University Inn, recently purchased, is used for dormitory purposes, and contains a dining hall where students obtain board at fifteen dollars a month.

The Power House contains the electric lighting plant, the central heating plant, filter and pumps of the system of water supply, and the rooms of the University Press.

The general equipment has been improved by a thorough system of sewers and baths, a supply of pure water in all the buildings, and hot water heat in all the offices, recitation rooms, and reading rooms.

COLLEGE YEAR. The College year begins on the second Thursday in September. It is divided into two terms of four and a half months each. Commencement is held on Tuesday before the first Thursday in June. The summer vacation begins on Commencement day and ends on the Wednesday before the second Thursday in September. There is a Christmas recess of about ten days. The twelfth of October (University Day),

Thanksgiving Day, and the twenty-second of February (Washington's Birthday) are holidays.

DEGREES. The degrees of Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Bachelor of Laws, and Graduate of Pharmacy are conferred by vote of the Trustees, after the recommendation of the Faculty, upon candidates who have satisfied the requirements of residence and study at the University. Students who are not candidates for a degree may elect any studies they wish, devoting their time entirely to one or two subjects, or selecting groups of such subjects as suit their tastes and purposes.

GRADUATE STUDENTS. Free instruction is given in the College to graduates of colleges and universities. Women are admitted to the higher courses of the University.

PHYSICAL TRAINING. Hearty encouragement is given to athletic sports and to all kinds of physical culture. The athletic field furnishes ample facilities for football and baseball. The Lake Track is admirably adapted for running, bicycling, and general track athletics. Fifteen tennis courts are located on the campus. Systematic exercise in the Bynum Gymnasium under a skilled instructor is required of all students in the College, except Seniors.

GENERAL CULTURE. Prayers are conducted in Gerrard Hall, with the reading of the scriptures and singing, every weekday morning except Saturday, at 9:25 o'clock. Attendance at this service is required of all undergraduates, unless especially excused. Bible classes for young men are taught in each of the four churches of the village every Sunday. Religious services are held twice a week, or oftener, in each church. A series of sermons is delivered annually by the University Preachers, chosen by the Trustees from the various denominations. Bible lectures are delivered every Sunday morning in Gerrard Hall. The Young Men's Christian Association meets three times a week, for prayer and other services, and conducts a series of Bible courses, which are numerous attended by the students.

DISCIPLINE. The University endeavors to make young men manly and self-reliant, and to develop character by educating

the conscience. The Faculty may, at their discretion, admonish, suspend, or dismiss students for neglect of duty or for misconduct.

MEDICAL ATTENDANCE. On the payment of an annual fee of \$5.00, each student receives the careful attention of the University Physician. In this way the best medical advice is to be had at the least cost. The Infirmary, under the supervision of the University Physician and provided with a trained nurse, affords the conveniences and comforts necessary for the students in their sickness.

TRUSTEES

WILLIAM WALTON KITCHIN, GOVERNOR, President
ex-officio of the Board of Trustees.

JAMES YADKIN JOYNER, SUPERINTENDENT OF PUBLIC
INSTRUCTION, member *ex-officio* of the Board of Trustees.

RICHARD HENRY BATTLE, Secretary and Treasurer.

MEMBERS OF THE BOARD

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* The legal term of office expires November 30 of the year indicated.

WILLIAM ANDERSON GUTHRIE.....	Durham.
EDWARD JOSEPH HALE.....	Cumberland.
HENRY AUGUSTUS GILLIAM.....	Edgecombe.
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RICHARD HENRY LEWIS.....	Wake.
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1917

ALEXANDER BOYD ANDREWS.....	Wake.
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AUGUSTUS WASHINGTON GRAHAM.....	Granville.
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JOHN GEORGE HANNAH, JR.....	Chatham.
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1919

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JOHN WASHINGTON GRAHAM.....	Orange.
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SAMUEL SPENCER MANN.....	Hyde.
WALTER MURPHY.....	Rowan.
WILLIAM BLOUNT RODMAN.....	Mecklenburg.
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CHARLES WHEDBEE.....	Perquimans.
WILLIAM THORNTON WHITSET.....	Guilford.
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CHARLES WILLIAMS WORTH.....	New Hanover.
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FACULTY

OFFICERS OF ADMINISTRATION

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., President.

EDWARD KIDDER GRAHAM, A. M., Dean of the College of Liberal Arts.

ANDREW HENRY PATTERSON, A. M., Dean of the School of Applied Science.

CHARLES LEE RAPER, Ph. D., Dean of the Graduate School.

LUCIUS POLK MCGEHEE, A. B., Dean of the School of Law.

ISAAC HALL MANNING, M. D., Dean of the School of Medicine.

EDWARD VERNON HOWELL, A. B., Ph. G., Dean of the School of Pharmacy.

OFFICERS OF INSTRUCTION

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., Professor of Chemistry.

Student, University of Virginia, 1874-1879; University of Bonn, 1879-1880; A. M., Ph. D., University of Goettingen, 1881; Student, University of Berlin, 1889; LL. D., University of Pennsylvania, 1901; D. Sc., Lafayette College, 1902; LL. D., University of South Carolina, 1905; LL. D., University of Alabama, 1906; Professor of Chemistry, University of North Carolina, 1880-1900; President, *ibid.*, 1900 —

KEMP PLUMMER BATTLE, A. M., LL. D., Professor Emeritus of History.

A. B., University of North Carolina, 1849; A. M., *ibid.*, 1852; Tutor in Mathematics, *ibid.*, 1850-1854; LL. D., Davidson College, 1879; President University of North Carolina, 1876-1891; Professor of History, *ibid.*, 1891-1907; LL. D., *ibid.*, 1910; Professor Emeritus of History, *ibid.*, 1907 —

THOMAS HUME, A. B., D. D., LL. D., Professor Emeritus of English Literature.

A. B., Richmond College, 1855; Graduate Student, University

of Virginia, 1858; Principal and Professor of English, Roanoke College for Women, 1867-1871; D. D., Richmond College, 1882; Professor of English, Norfolk College, 1880-1885; Professor of English Language and Literature, University of North Carolina, 1885-1902; LL. D., Wake Forest College, 1892; Professor of English Literature, University of North Carolina, 1902-1907; Professor Emeritus of English Literature, *ibid.*, 1907 —; LL. D., *ibid.*, 1910.

WALTER DALLAM TOY, M. A., Professor of the Germanic Languages and Literatures.

M. A., University of Virginia, 1882; Student, University of Leipzig, 1882-1883, University of Berlin, 1883-1885, Collège de France, 1885; Professor of Germanic Languages and Literatures, University of North Carolina, 1885 —; Student, University of Berlin, 1910-1911.

WILLIAM CAIN, A. M., Professor of Mathematics.

A. M., North Carolina Military Polytechnic Institute, 1866; Professor of Mathematics and Engineering, Carolina Military Institute, 1874-1879; Professor of Mathematics and Engineering, South Carolina Military Academy, 1882-1889; Professor of Mathematics, University of North Carolina, 1889 —

HENRY HORACE WILLIAMS, A. M., B. D., Professor of Philosophy.

A. B., A. M., University of North Carolina, 1883; Professor of Philosophy, Trinity College (N. C.), 1885; B. D., Yale University, 1888; Fellow, Harvard University, 1889; Professor of Philosophy, University of North Carolina, 1890 —

HENRY VANPETERS WILSON, Ph. D., Professor of Zoology.

A. B., Johns Hopkins University, 1883; Fellow, *ibid.*, 1887-1889; Ph. D., *ibid.*, 1888; Professor of Biology, University of North Carolina, 1891-1904; Student, University of Berlin, 1902-1903; Professor of Zoology, University of North Carolina, 1904 —

COLLIER COBB, A. M., Professor of Geology and Mineralogy.

A. B., Harvard University, 1889; Assistant in Geology, *ibid.*, 1888-1890; Instructor in Geology, Massachusetts Institute of Technology, 1890-1892; Assistant Professor of Geology, University of North Carolina, 1892-1893; Professor of Geology and Mineralogy, *ibid.*, 1893 —; A. M., Harvard University, 1894.

CHARLES STAPLES MANGUM, A. B., M. D., Professor of Anatomy.

A. B., University of North Carolina, 1891; M. D., Jefferson Medical College, 1894; Assistant and Demonstrator, *ibid.*, 1894-1895; Graduate Student, University of Chicago, 1906; Professor of Anatomy, University of North Carolina, 1896—

EDWARD VERNON HOWELL, A. B., Ph. G., Professor of Pharmacy.

A. B., Wake Forest College, 1892; Ph. G., Philadelphia College of Pharmacy, 1894; Professor of Pharmacy and Dean of the School of Pharmacy, University of North Carolina, 1897—

MARCUS CICERO STEPHENS NOBLE, Professor of Pedagogy.

Student, Davidson College and University of North Carolina; Commandant, Bingham School, 1880-1883; Superintendent of Schools, Wilmington, N. C., 1883-1898; Professor of Pedagogy, University of North Carolina, 1898—

ISAAC HALL MANNING, M. D., Professor of Physiology.

Student, University of North Carolina, 1882-1886; Assistant in Chemistry, *ibid.*, 1886; M. D., Long Island College of Medicine, 1897; Graduate Student, University of Chicago, 1901, 1903, Harvard University, 1902, 1906; Professor of Physiology, University of North Carolina, 1901—; Dean of the School of Medicine, *ibid.*, 1905—

GEORGE HOWE, Ph. D., Professor of the Latin Language and Literature.

A. B., Princeton University, 1897; A. M., Ph. D., University of Halle, 1903; Student, Oxford University, 1903; Professor of Latin Language and Literature, University of North Carolina, 1903—

JOSEPH HYDE PRATT, Ph. D., Professor of Economic Geology.

Ph. B., Yale University, 1893; Assistant in Chemistry, *ibid.*, 1894; Assistant in Mining, *ibid.*, 1895; Instructor in Mining, Harvard Summer School, 1895; Ph. D., Yale University, 1896; Instructor in Mineralogy, *ibid.*, 1896-1897; Lecturer on Economic Geology, University of North Carolina, 1899-1904; Professor of Economic Geology, *ibid.*, 1904—; State Mineralogist, 1897-1906; State Geologist, 1906—

CHARLES HOLMES HERTY, Ph. D., Smith Professor of General and Industrial Chemistry.

Ph. B., University of Georgia, 1886; Ph. D., Johns Hopkins University, 1890; Instructor in Chemistry, University of Georgia, 1891-1894; Adjunct Professor of Chemistry, *ibid.*, 1894-1902; Student, University of Zurich and University of Berlin, 1899-1900; Professor of Chemistry, University of North Carolina, 1905—; Dean of the School of Applied Science, *ibid.*, 1908-1911.

NATHAN WILSON WALKER, A. B., Professor of Secondary Education.

A. B., University of North Carolina, 1903; Superintendent of Schools at Asheboro, N. C., 1903-1905; Professor of Secondary Education, University of North Carolina, 1905—; State Inspector of Public High Schools, 1905—

WILLIAM DEBERNIERE MACNIDER, M. D., Professor of Pharmacology.

Assistant in Biology, University of North Carolina, 1899-1900; Assistant in Anatomy, *ibid.*, 1900-1901; M. D., *ibid.*, 1903; Student, University of Chicago, 1906, 1907, 1908; Professor of Pharmacology, University of North Carolina, 1905—

CHARLES LEE RAPER, Ph. D., Professor of Economics.

A. B., Trinity College, (N. C.), 1892; Instructor in Greek and Latin, *ibid.*, 1892-1893; Professor of Latin, Greensboro Female College, 1894-1898; Fellow in History, Columbia University, 1899-1900; Lecturer in History, *ibid.*, 1900-1901; Associate Professor of Economics and History, University of North Carolina, 1901-1906; Ph. D., Columbia University, 1902; Professor of Economics, University of North Carolina, 1906—; Dean of Graduate School *ibid.*, 1909—

EDWARD KIDDER GRAHAM, A. M., Professor of English.

Ph. B., University of North Carolina, 1898; Librarian, *ibid.*, 1899; Instructor in English, *ibid.*, 1899-1901; Associate Professor of English, *ibid.*, 1901-1904; A. M., Columbia University, 1902; Student, *ibid.*, 1904-1905; Professor of English, University of North Carolina, 1904—; Dean of College of Liberal Arts, *ibid.*, 1909—

WILLIAM CHAMBERS COKER, Ph. D., Professor of Botany.

B. S., University of South Carolina, 1894; Ph. D., Johns Hopkins University, 1901; Student, University of Bonn, 1901-1902;

Associate Professor of Botany, University of North Carolina, 1902-1907; Professor of Botany, *ibid.*, 1907 —

ARCHIBALD HENDERSON, Ph. D., Professor of Pure Mathematics.

A. B., University of North Carolina, 1898; A. M., *ibid.*, 1899; Instructor in Mathematics, *ibid.*, 1898-1902; Student, University of Chicago, 1901; Ph. D., University of North Carolina, 1902; Fellow and Tutor in Mathematics, University College and University of Chicago, 1902-1903; Associate Professor of Mathematics, University of North Carolina, 1902-1908; Professor of Pure Mathematics, *ibid.*, 1908—; Student, Cambridge University, University of Berlin, the Sorbonne, 1910-1911.

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., Alumni Professor of History.

M. A., University of the South, 1900; Ph. D., Columbia University, 1906; Associate Professor of History, University of North Carolina, 1906-1908; Professor of History, *ibid.*, 1908 —

ANDREW HENRY PATTERSON, A. M., Professor of Physics.

Ph. B., B. E., University of North Carolina, 1891; A. B., Harvard University, 1892; A. M., *ibid.*, 1893; Instructor in Physics, University of Georgia, 1894-1897; Adjunct Professor of Physics and Electrical Engineering, *ibid.*, 1897-1898; Professor of Physics and Astronomy, *ibid.*, 1898-1908; Student University of Berlin and Charlottenburg Technische Hochschule, 1905-1906; Student, Cambridge University, 1906; Professor of Physics, University of North Carolina, 1908—; Dean of the School of Applied Science, *ibid.*, 1911 —

HENRY MCGILBERT WAGSTAFF, Ph. D., Professor of History.

Ph. B., University of North Carolina, 1899; Professor of Mathematics, Rutherford College, (N. C.), 1900-1902; Ph. D., Johns Hopkins University, 1906; Acting Professor of Economics and History, Alleghany College, 1906-1907; Associate Professor of History, University of North Carolina, 1907-1909; Professor of History, *ibid.*, 1909 —

EDWIN MIMS, Ph. D., Professor of English.

A. B., Vanderbilt University, 1892; Fellow and Assistant in English, *ibid.*, 1892-1894; M. A., *ibid.*, 1893; Professor of English Literature, Trinity College (N. C.), 1894-1908; Fellow and Assistant in History, Cornell University, 1896-1897; Ph. D.,

- *ibid.*, 1900; Professor of English, University of North Carolina, 1908—

PATRICK HENRY WINSTON, Professor of Law.

Student, University of Texas, 1897-1898, University of North Carolina, 1899-1900; Graduate United States Military Academy, 1905; Student, University of North Carolina School of Law, 1905; Professor of Law, *ibid.*, 1909—; Student, University of Michigan, 1910.

WILLIAM MORTON DEY, Ph. D., Professor of the Romance Languages and Literatures.

B. A., M. A., University of Virginia, 1902; Student in Paris, 1903; A. M., Harvard University, 1904; Austin Teaching Fellow, *ibid.*, 1905-1906; Ph. D., *ibid.*, 1906; Student in Spain and Italy, 1906; Assistant Professor of Romance Languages, University of Missouri, 1906-1909; Professor of Romance Languages, University of North Carolina, 1909—

MARVIN HENDRIX STACY, A. M., Professor of Civil Engineering.

Ph. B., University of North Carolina, 1902; Instructor in Mathematics, *ibid.*, 1902-1906; A. M., *ibid.*, 1904; Student, Cornell University, 1905, 1906, 1911; Associate Professor of Civil Engineering, University of North Carolina, 1906-1910; Professor of Civil Engineering, *ibid.*, 1910—

JAMES FINCH ROYSTER, Ph. D., Professor of English.

A. B., Wake Forest College, 1900; Student, University of Chicago, 1900-1902, University of Berlin, 1902-1903; Acting Instructor, University of Colorado, 1904-1905; Fellow, University of Chicago, 1905-1906; Associate, *ibid.*, 1906-1907; Ph. D., *ibid.*, 1907; Associate Professor of English, University of North Carolina, 1907-1910; Professor of English, *ibid.*, 1910—

LUCIUS POLK MCGEHEE, A. B., Professor of Law.

A. B., University of North Carolina, 1887; Student, School of Law, *ibid.*, 1890-1891; Professor of Law, *ibid.*, 1904-1909; Dean of the School of Law, 1910—

CHARLES WESLEY BAIN, A. M., Professor of Greek.

Student, University of Virginia, 1883-1885; A. M., University of the South, 1895; Professor of Ancient Languages, University

of South Carolina, 1898-1910; Professor of Greek, University of North Carolina, 1910 —

ATWELL CAMPBELL MCINTOSH, A. M., Professor of Law.

A. B., Davidson College, 1881; A. M., *ibid.*, 1887; Professor of Law, Trinity College (N. C.), 1904-1910; Professor of Law, University of North Carolina, 1910 —

HARRY WOODBURN CHASE, Ph. D., Professor of the Philosophy of Education.

A. B., Dartmouth College, 1904; Teacher in the Groveland High School, (Mass.), 1904-1908; A. M., Dartmouth College, 1908; Director of the Clinic for Subnormal Children, Clark University, 1909-1910; Ph. D., *ibid.*, 1910; Professor of the Philosophy of Education, University of North Carolina, 1910 —

WADE HAMPTON BROWN, B. S., M. D., Professor of Pathology.

B. S., University of Nashville, 1899; Student, University of Chicago, 1902, 1903; M. D., Johns Hopkins University, 1907; Instructor in Pathology and Bacteriology, University of Virginia, 1907-1908; Instructor in Pathology, University of Wisconsin, 1908-1910; Associate Professor of Pathology, *ibid.*, 1910-1911; Professor of Pathology, University of North Carolina, 1911 —

ALVIN SAWYER WHEELER, Ph. D., Associate Professor of Organic Chemistry.

A. B., Beloit College, 1890; Student, University of Chicago, 1895; Student, Cornell University, 1897; A. M., Harvard University, 1897; Assistant in Chemistry, *ibid.*, 1897-1900; Ph. D., *ibid.*, 1900; Associate Professor of Chemistry, University of North Carolina, 1900 —; Student, University of Berlin, University of Bonn, Swiss Federal Polytechnic, 1910-1911.

THOMAS JAMES WILSON, JR., Ph. D., Associate Professor of Latin.

A. B., University of North Carolina, 1894; A. M., *ibid.*, 1896; Ph. D., *ibid.*, 1898; Student, University of Chicago, 1903, 1906; Associate Professor of Latin, University of North Carolina, 1902 —; Registrar, *ibid.*, 1908 —

WILLIAM STANLY BERNARD, A. M., Associate Professor of Greek.

Student, Episcopal Theological Seminary, (Va.), 1893-1895; A. B., University of North Carolina, 1900; Librarian, *ibid.*, 1900-

1901; Instructor in Greek, *ibid.*, 1901-1906; A. M., *ibid.*, 1904; Associate Professor of Greek, *ibid.*, 1906—; Student, University of Chicago, 1906, Columbia University, 1909, 1910, 1911.

LOUIS ROUND WILSON, Ph. D., Associate Professor of Library Administration.

A. B., University of North Carolina, 1899; Librarian, *ibid.*, 1901—; A. M., *ibid.*, 1902; Ph. D., *ibid.*, 1905; Associate Professor of Library Administration, 1907—; Student, Columbia University, 1910.

ROBERT BAKER LAWSON, M. D., Associate Professor of Anatomy.

Student, University of North Carolina, 1897-1900; M. D., University of Maryland, 1902; Instructor in Anatomy, University of North Carolina, 1905-1906; Demonstrator in Anatomy, *ibid.*, 1906-1908; Associate Professor of Anatomy, *ibid.*, 1908—

GEORGE MCFARLAND MCKIE, A. M., Associate Professor of Public Speaking.

Graduate, Emerson College of Oratory, 1898; A. B., A. M., University of North Carolina, 1907; Student, Harvard University, 1907-1908; Instructor in English, University of North Carolina, 1899-1908; Associate Professor of Public Speaking, *ibid.*, 1908—

JOHN MANNING BOOKER, A. B., Associate Professor of English.

A. B., Johns Hopkins University, 1901; Student, University of Munich, University of Heidelberg; Associate Professor of English, University of North Carolina, 1909—

OLIVER TOWLES, A. B., Associate Professor of the Romance Languages.

A. B., University of Virginia, 1906; Student, Johns Hopkins University, 1906-1909; Student in France, 1908; Associate Professor of Romance Languages, University of North Carolina, 1909—

THOMAS FELIX HICKERSON, A. M., Associate Professor of Civil Engineering.

Ph. B., University of North Carolina, 1904; Instructor in Mathematics, *ibid.*, 1905-1908; A. M., *ibid.*, 1907; S. B., Massachusetts Institute of Technology, 1909; Associate Professor of Civil Engineering, University of North Carolina, 1910—

PARKER HAYWARD DAGGETT, S. B., Associate Professor of Electrical Engineering.

Assistant in Electrical Engineering, Harvard University, 1908-1909; S. B., *ibid.*, 1910; Acting Professor of Electrical Engineering, University of North Carolina, 1910; Associate Professor of Electrical Engineering, *ibid.*, 1910 —

JAMES MUNSIE BELL, Ph. D., Associate Professor of Physical Chemistry.

B. A., University of Toronto, 1902; M. A., *ibid.*, 1905; Assistant in Chemistry, Cornell University, 1902-1903; Graduate Scholar in Chemistry, *ibid.*, 1903-1904; Sage Fellow in Chemistry, *ibid.*, 1904-1905; Ph. D., *ibid.*, 1905; Associate Professor of Physical Chemistry, University of North Carolina, 1910 —

ROBERT ANDERSON HALL, Ph. D., Associate Professor of General Chemistry.

B. A., University of Chicago, 1905; Assistant in Chemistry, *ibid.*, 1905-1907; Ph. D., *ibid.*, 1907; Assistant Professor of Chemistry, Armour Institute of Technology, 1907-1908; Assistant Professor of Chemistry, Clemson College, 1908-1910; Associate Professor of Chemistry, University of North Carolina, 1910 —

GEORGE BURRIDGE VILES, Ph. D., Associate Professor of Germanic Languages and Literatures.

A. B., Harvard University, 1892; Instructor in Modern Languages, Worcester Polytechnic Institute, 1892-1895; A. M., Harvard University, 1896; Instructor in German, Cornell University, 1896-1902; Ph. D., *ibid.*, 1902; Student, University of Leipzig, 1902-1903; Instructor in German, Cornell University, 1903-1904; Assistant Professor of Germanic Languages and Literatures, Ohio State University, 1904-1906; Associate Professor of Germanic Languages and Literatures, *ibid.*, 1906-1908; Diplome Supérieur Alliance Française, Paris, 1908; Student, the Sorbonne, 1908-1909; Acting Professor of Germanic Languages and Literatures, University of North Carolina, 1910-1911; Associate Professor of Germanic Languages and Literatures, *ibid.*, 1911 —

GEORGE KENNETH GRANT HENRY, A. M., Instructor in Latin.

A. B., Hamilton College, 1900; A. M., *ibid.*, 1904; Instructor in Mathematics, University of North Carolina, 1908-1909; Instructor in Latin, *ibid.*, 1909 —

JOHN GROVER BEARD, Ph. G., Instructor in Pharmacy.

Assistant in Pharmacy, University of North Carolina, 1908-1909;
Ph. G., *ibid.*, 1909; Instructor in Pharmacy, *ibid.*, 1909 —

VIVIAN LEROY CHRISLER, A. M., Instructor in Physics.

A. B., Piedmont College, 1902; Assistant in Physics, University of Nebraska, 1906-1909; B. S., *ibid.*, 1908; A. M., *ibid.*, 1909; Instructor in Science and Mathematics, Piedmont College, 1909-1910; Instructor in Physics, University of North Carolina, 1910 —

THEOPHILUS RANDOLPH EAGLES, JR., A. B., Instructor in Mathematics.

A. M., University of North Carolina, 1908; Professor of Mathematics and Science, Catawba College, 1908-1909; Professor of Mathematics, Bethany College, 1909-1910; Instructor in Mathematics, University of North Carolina, 1910 —

WILLIAM HENRY FRY, A. B., Instructor in Geology.

Assistant in Geology, University of North Carolina, 1908-1910;
A. B., *ibid.*, 1910; Instructor in Geology, *ibid.*, 1910 —

GEORGE MARK SNEATH, A. M., Instructor in English.

A. B., Yale University, 1907; A. M., *ibid.*, 1910; Instructor in English, University of North Carolina, 1910 —

JOHN NOTTINGHAM WARE, A. M., Instructor in French.

A. B., A. M., Randolph Macon College, 1901; Student in Paris, 1909; A. M., Johns Hopkins University, 1911; Instructor in French, University of North Carolina, 1910 —

JOHN WAYNE LASLEY, A. M., Instructor in Mathematics.

A. B., University of North Carolina, 1910; Fellow in Mathematics, *ibid.*, 1910-1911; A. M., *ibid.*, 1911; Instructor in Mathematics, *ibid.*, 1911 —

DANIEL HUGER BACOT, JR., A. M., Instructor in History.

A. B., College of Charleston, 1908; Assistant in English, *ibid.*, 1908-1909; A. M., *ibid.*, 1909; Student, Harvard University, 1909-1911; A. M., *ibid.*, 1910; Instructor in History, University of North Carolina, 1911 —

JOHN ELLIOTT WOOD, A. B., Instructor in Drawing.

A. B., University of North Carolina, 1911; Instructor in Drawing, *ibid.*, 1911 —

JAMES TALMAGE DOBBINS, A. B., Fellow in Chemistry.
WILLIAM LEWIS JEFFRIES, A. B., Toch Fellow in Chemistry.
CHARLES WILSON WILLIARD, S. B., LeDoux Fellow in Chemistry.
WILLIAM RENN THOMAS, A. B., Fellow in Latin.
SHELDON ASA SAUNDERS, Assistant in Anatomy.
DAVID BRYAN SLOAN, A. B., Assistant in Bacteriology.
WILLIAM BATTLE COBB, Assistant in Botany.
PAUL ROBY BRYAN, Assistant in Chemistry.
CARNIE BLAKE CARTER, Assistant in Chemistry.
CLARENCE BALLEW HOKE, Assistant in Chemistry.
FLEMING ROSS WEAVER, Assistant in Chemistry.
CHARLES ALEXANDER VOGLER, A. B., Assistant in Geology.
CYRUS DUNLAP HOGUE, A. B., Assistant in German.
JAMES AMBLER SPEIGHT, Assistant in Histology.
THADDEUS EARL WILKERSON, JR., Assistant in Histology.
ROBERT WILLIS BOBBITT, Assistant in the Library.
THOMAS MICHAEL RAMSAUR, Assistant in the Library.
WILLIAM WHITE ROGERS, Assistant in the Library.
CYRUS RICHARD WHARTON, Assistant in the Library.
GEORGE PICKETT WILSON, Assistant in the Library.
CALEB KNIGHT BURGESS, Assistant in Physics.
JOHN BURTON CLINGMAN, Assistant in Surveying.
WESLEY CRITZ GEORGE, A. B., Assistant in Zoology.
LEE FRANKLIN TURLINGTON, A. B., Assistant in Zoology

OTHER OFFICERS

WALTER DALLAM TOY, M. A., Secretary of the Faculty.
LOUIS ROUND WILSON, Ph. D., Librarian.
NAN SPOTSWOOD STRUDWICK, Assistant Librarian.
ROBERT BAKER LAWSON, M. D., Director of the Gymnasium.
JAMES RICHARD ALLISON, Assistant in the Gymnasium.
ALBERT EDGAR WOLTZ, A. M., Bursar.
CHARLES THOMAS WOOLLEN, Proctor.

THOMAS JAMES WILSON, JR., Ph. D., Registrar.

MARVIN HENDRIX STACY, A. M., Recorder of Absences.

EDWARD PLEASANT HALL, General Secretary of the Young Men's Christian Association.

STANDING COMMITTEES OF THE FACULTY

The President is a member *ex officio* of all committees.

EXECUTIVE. President Venable; Professors Herty, Graham, Patterson.

AUDITING. Professors Cain, Patterson, Toy.

ATHLETICS. Professors Royster, Herty, Mangum, Howe, Bain.

CATALOGUE. Professors Howe, T. J. Wilson, Daggett.

COMMONS. Professors Toy, McKie.

LIBRARY. Professors Raper, Coker, Mims, Dey.

RECORD. Professors Royster, L. R. Wilson, Hickerson.

UNIVERSITY MAGAZINE. Professors, Cobb, Hamilton, Bain.

PUBLIC LECTURES. Professors Herty, Bain, McGehee, MacNider.

DEBATES. Professors Williams, Raper, Graham.

SELF HELP. Professors Stacy, Hickerson.

UNIVERSITY PRESS ASSOCIATION. Professor Graham.

UNIVERSITY SERMONS. Professors Mims, Raper, McKie.

UNIVERSITY PRESS. Professor Cobb.

ALUMNI ORGANIZATIONS. Professors Bernard, T. J. Wilson, Patterson.

GRADUATE SCHOOL. President Venable; Professors Raper, Graham, Howe.

ENTRANCE CERTIFICATES. Professors Walker, Hamilton, Royster, Hickerson.

UNIVERSITY BULLETIN. Professors Stacy, McKie.

SCHEDULES. Professors T. J. Wilson, Stacy.

LIBRARY APPROPRIATIONS. President Venable; Professors Raper, Graham.

COURSES OF STUDY. Professors Graham, Patterson, Howe.

COMMENCEMENT PROGRAM. Professors Graham, Howe, Mims.

McNAIR LECTURES. President Venable; Professors Graham, Herty, Coker.

ABSENCES. Professors Patterson, Stacy.

ADVANCED STANDING. President Venable; Professors Howe, T. J. Wilson.

PART TWO

**THE COLLEGE OF LIBERAL ARTS
THE SCHOOL OF APPLIED SCIENCE
THE GRADUATE SCHOOL**

THE COLLEGE OF LIBERAL ARTS

There are three courses of instruction outlined in The College of Liberal Arts. The object of these courses is to provide a general, well-rounded, liberal education. The first two years of each allow but little election of studies. Beginning with the Junior year the election is wider, and a student can devote himself, to a large extent, to such special lines of study as he may prefer, although there are certain general restrictions designed to guard against too narrow a specialization. The first course, requiring both Greek and Latin, corresponds to the old classical course. The second course is a combination of ancient and modern languages and science. The third course is largely scientific. All of these courses lead to the one degree of Bachelor of Arts, and they are so balanced as to make the work equally difficult and worthy.

ADMISSION

Admission Into the Freshman Class

Candidates for admission into the Freshman Class are received by examination or by certificates from accredited schools.

Entrance examinations are held in September. Arrangements have been made with certain schools in the State whereby examinations for admission may be held in May, also, at the schools. The University will accept the uniform entrance examination papers of the Association of Colleges and Preparatory Schools of the Southern States, provided such papers are properly vouched for and sent sealed to the University for grading. Candidates for admission by examination must report at 9 A. M., *Monday, September 9, 1912*, to the Registrar, who will appoint time and place for examination.

Students who present certificates of work accomplished at preparatory schools and colleges may be admitted without examination, provided the certificates are approved. The right to examine, however, is reserved, when such a course is deemed necessary. Certificates must be made out on the printed forms

furnished on application to the Registrar, and should be sent in as early as possible in the summer vacation. They must be submitted for approval to the Committee on Entrance Certificates in No. 10 Alumni Building during the period of registration (*September 9, 10, 11, 1912*).

Subjects Accepted for Entrance

The complete list of subjects accepted for entrance is as follows:

*English <i>a, b</i> ,.....	3.	units
History <i>a, b, c</i> ,.....	3.	units
Mathematics <i>a, b, c, d</i> ,.....	3.5	units
Greek <i>a, b, c</i> ,.....	3.	units
Latin <i>a, b, c, d, e</i> ,.....	4.7	units
French <i>a, b</i> ,.....	3.	units
German <i>a, b</i> ,.....	3.	units
Spanish,	2.	units
Botany,	1.	unit
Chemistry,	1.	unit
Physics,	1.	unit
Zoology,	1.	unit
Drawing,	1.	unit
Civics, .....	.5	unit
Physiography, .....	.5	unit
Physiology, .....	.5	unit

It will be noticed that each subject has a valuation by units. A unit means a definite amount of a subject satisfactorily completed in a reasonable length of time. For example, one unit in History means the satisfactory completion of a standard text book in English or United States History in a period of study continuing through an entire High School session; one-half unit in Solid Geometry means the completion of the four books of Solid Geometry in about one-half a session; the fourteen units mentioned below correspond to the four years of work in a good High School.

Unconditioned entrance to the undergraduate departments of the University requires a total of 14 units selected from the list above. A candidate, however, who desires to pursue

* For specific requirements in each of the subjects in this list see pp. 34-37.

any one of the regular courses leading to a Bachelor's degree must make his selection from the list of accepted subjects accord with the course to be pursued after entrance. Thus, the undergraduate course requiring Greek, Latin, Mathematics, and English necessitates the selection on the part of the candidate of a specified number of units in each of these branches (see below). The same is true, also, of entrance to all other courses.

The following tables indicate the requirements for entrance to each of the three courses leading to the degree of Bachelor of Arts (see page 39).

For entrance to group 1:

English <i>a</i> and <i>b</i>	3. units
History <i>a</i> or <i>b</i>	2. units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i>	3. units
Greek <i>a</i> and <i>b</i>	2. units
Latin <i>a</i> , <i>b</i> , <i>c</i> , and <i>d</i>	3.7 units
Elective .....	.3 unit

For entrance to group 2:

English <i>a</i> and <i>b</i>	3. units
History <i>a</i> or <i>b</i>	2. units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i>	3. units
Latin <i>a</i> , <i>b</i> , <i>c</i> , and <i>d</i>	3.7 units
French <i>a</i> or German <i>a</i>	2. units
Elective .....	.3 unit

For entrance to group 3:

English <i>a</i> and <i>b</i>	3. units
History <i>a</i> or <i>b</i>	2. units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i>	3. units
French <i>a</i>	2. units
German <i>a</i>	2. units
Science	1. unit
Elective	1. unit

At the discretion of the Committee on Entrance Certificates candidates may be admitted with conditions, provided the total number of units offered does not fall below the minimum of 12 units, and provided the conditions are of such nature that, in the judgment of the Committee, they may be removed accord-

ing to the regulations given in the next paragraph. The Committee has the discretionary power to admit certain candidates whose credits fall below 12 units, if, in the opinion of the Committee, the maturity of the candidate, who must be at least twenty-one years of age, justifies such action. Candidates thus admitted will be classed as special students.

Entrance conditions in any subject must be made up by September of the following year. A student who fails to comply with this regulation will not be allowed to register for any course in his Sophomore year.

The requirements in each of the subjects accepted for entrance are as follows:

ENGLISH: (a) Reading and Practice..... 1.5 units

- A. Two books from the following: 1. Shakespeare's *As You Like It*; 2. *Henry V*; 3. *Julius Cæsar*; 4. *The Merchant of Venice*; 5. *Twelfth Night*.
- B. One book from the following: 1. Bacon's *Essays*; 2. Bunyan's *The Pilgrim's Progress*, Part I; 3. *The Sir Roger de Coverley Papers in the Spectator*; 4. Franklin's *Autobiography*.
- C. One book from the following: 1. Chaucer's *Prologue*; 2. Selections from *Spencer's Faerie Queene*; 3. Pope's *The Rape of the Lock*; 4. Goldsmith's *The Deserted Village*; 5. Palgrave's *Golden Treasury* (First Series), Books I and II (special attention to Dryden, Collins, Gray, Cowper, and Burns).
- D. Two books from the following: 1. Goldsmith's *The Vicar of Wakefield*; 2. Scott's *Ivanhoe*; 3. *Quentin Durward*; 4. Hawthorne's *The House of Seven Gables*; 5. Thackeray's *Henry Esmond*; 6. Mrs. Gaskell's *Cranford*; 7. Dickens's *A Tale of Two Cities*; 8. George Eliot's *Silas Marner*; 9. Blackmore's *Lorna Doone*.
- E. Two books from the following: 1. Irving's *Sketch Book*; 2. Lamb's *Essays of Elia*; 3. De Quincey's *Joan of Arc and the English Mail-Coach*; 4. Carlyle's *Heroes and Hero Worship*; 5. Emerson's *Essays* (selected); 6. Ruskin's *Sesame and Lilies*.
- F. Two books from the following: 1. Coleridge's *The Ancient Mariner*; 2. Scott's *The Lady of the Lake*; 3. Byron's *Ma-zepa and the Prisoner of Chillon*; 4. Palgrave's *Golden Treasury* (First Series), Book IV (special attention to Wordsworth, Keats, and Shelley); 5. Macaulay's *Lays of Ancient Rome*; 6. Poe's *Poems*; 7. Lowell's *The Vision of Sir Laun-*

fal; 8. Arnold's *Sohrab and Rustum*; 9. Longfellow's *The Courtship of Miles Standish*; 10. Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; 11. Browning's *Poems* (selections).

The candidate is expected to have sufficient knowledge of these books to enable him to answer general questions on their substance. The form of the examination will be the composition of paragraphs on a number of topics connected with the works. The ability of the candidate to express his ideas in clear, accurate English is a main consideration. No applicant should present himself who is notably deficient in spelling, grammar, or paragraphing.

(b) Study and Practice..... 1.5 units

Shakespeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, *Comus*, and *Lycidas*; Burke's *Speech on Conciliation with America*, or Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; Macaulay's *The Life of Johnson*, or Carlyle's *Essay on Burns*.

The questions on these books will be on subject matter and structure.

HISTORY: (a) The histories of the United States, Greece, and Rome, as outlined in the best text books for high schools 2. units

(b) The histories of the United States and England as outlined in the best text books for high schools, 2. units

(c) Mediæval History..... 1. unit

MATHEMATICS: (a) Algebra 1.5 units

The whole of a high school algebra including quadratic equations, binomial theorem, and progressions.

(b) The whole of Plane Geometry..... 1. unit

(c) The whole of Solid Geometry..... .5 unit

(d) Trigonometry5 unit

Plane trigonometry and spherical trigonometry through right triangles.

GREEK: (a) Grammar and Composition..... 1. unit

Acquaintance with the more usual forms and constructions; simple narrative in English, based upon Xeno-

phon Anabasis, to be translated into Greek.

(b) Xenophon 1. unit
The first four books of the Anabasis.

(c) Homer 1. unit
The first three books of the Iliad, omitting II., 494—
end), with study of Homeric forms, constructions, and
prosody.

LATIN: (a) Grammar and Composition 1. unit
Forms, syntax, and prosody; simple narrative in Eng-
lish, based upon the prose read, to be translated into Latin.

(b) Cæsar 1. unit
The first four books of the Gallic War.

(c) Cicero7 unit
The four orations against Catiline.

(d) Vergil 1. unit
The first six books of the Æneid, study of hexameter
verse.

(e) Cornelius Nepos 1. unit
The first fifteen lives.

FRENCH: (a) Elementary 2. units
The forms and uses of the various parts of speech, in-
cluding irregular verbs; translation of 250 or more pages
of easy prose into idiomatic English; translation of sim-
ple English sentences into French; pronunciation.

(b) Intermediate 1. unit
Translation of 400 or more pages of French of ordinary
difficulty.

GERMAN: (a) Elementary 2. units
Inflection, including the most common irregular verbs;
the ordinary laws of German syntax; translation of 200
or more pages of easy German into idiomatic English;
translation of simple English sentences, based upon pas-
sages read, into German.

(b) Intermediate 1. unit
Translation of 400 or more pages of German of ordi-
nary difficulty.

SPANISH: Elementary 2. units

Inflection, including the most common irregular verbs; ordinary laws of syntax; translation of 250 pages or more of easy Spanish into idiomatic English; translation of simple English sentences, based upon the passages read, into Spanish.

BOTANY: 1. unit

A course such as is contained in any standard text book; laboratory work.

CHEMISTRY: 1. unit

A course such as is contained in any standard text book; laboratory work.

PHYSICS: 1. unit

A course such as is contained in Millikan and Gale's Physics or Carhart and Chute's High School Physics; laboratory work such as is outlined in Millikan and Gale's Physics.

PHYSIOGRAPHY:5 unit

A course such as is contained in any standard text book.

PHYSIOLOGY:5 unit

A course such as is contained in any standard text book.

ZOOLOGY: 1. unit

A year's course such as is contained in any standard text book.

CIVICS:5 unit

A course such as is contained in any standard text book.

DRAWING: 1. unit

A year's work, including simple geometrical plane and solid figures, simple pieces of machinery; elementary rules of perspective, light, and shade, as applied in free-hand sketching.

Admission to Advanced Standing

A candidate for advanced standing may be admitted to the Sophomore, Junior, or Senior Class, with or without complete examination. He is subject not only to the examinations re-

quired of candidates for admission into the Freshman Class, but to special examinations both in all the required studies already pursued by the class which he desires to enter, and in as many elective studies as would have been required of him as a member of that class. When satisfied with the apparent fitness of the candidate, the examining committee may, in spite of his deficiencies in some studies, admit him to an advanced class; but a candidate so admitted is not recommended for the degree until the deficiencies are made good. The examining committee may accept, also, with proper restrictions, the official report of work satisfactorily completed at a college or university of good standing in place of an examination upon such previous work.

A candidate for advanced standing should present himself for examination on the same days and at the same hours as candidates for admission in the Freshman Class.

CURRICULUM

COURSES LEADING TO THE DEGREE OF BACHELOR OF ARTS.

In order to be recommended for the degree of Bachelor of Arts, the student must have passed satisfactory examinations in all the studies required in one of the groups prescribed for the Freshman and Sophomore years, and in a number of elective studies during the Junior and Senior years sufficient to amount to an average of fifteen hours of lectures or recitations a week for each of these years.

The group of studies selected for the Freshman and Sophomore years must correspond to the group of subjects offered for entrance.

Freshman Year.

GROUP 1.		GROUP 2.		GROUP 3.	
English I (3)*		English I (3)		English I (3)	
Mathematics I (4)		Mathematics I (4)		Mathematics I (4)	
Greek I (4)	Select	Greek I (4)		German I (3)	
Latin I (4)	one	Latin I (4)		French I (3)	
Pub.Speaking I (1)	Select	German I (3)		History I (3)	
	one	French I (3)		Pub.Speaking I (1)	
		History I (3)			
		Pub.Speaking I (1)			

Sophomore Year.

GROUP 1.		GROUP 2.		GROUP 3.	
	English 2 (3)		English 2 (3)		English 2 (3)
Select	Greek 2 (3)		Greek 2 (3)		Math. 2 (3)
one	Latin 2 (3)		Latin 2 (3)		Chem. I (3)
	Greek 2 (3)	Select	German I (3)		Physics I (3)
Select	Latin 2 (3)	two	French I (3)		Elective (3)
one	German I (3)		German 2 (3)		
	French I (3)		French 2 (3)		
	Math. 2 (3)	Select	Math. 2 (3)		
Select	Chem. I (3)	one	Physics I (3)		
one	Physics I (3)		Elective (3)		
	Elective (3)				

* Numerals in parentheses indicate the number of hours a week.

SOPHOMORE ELECTIVES: Greek 2 (3), Latin 2 (3), German 1 (3), French 1 (3), History 3 (3), History 8 (3), Botany 1 (3), Chemistry 1 (3), Geology 1 (3), Mathematics 2 (3), Physics 1 (3), Zoology 1 (3).

The selection made must in each case be submitted to Professor Howe for approval.

Junior Year

ELECTIVE STUDIES amounting to fifteen hours a week, of which at least one study must be taken from each of the following groups, A, B, and C:

A

English 3 (3), 4 (3), 5 (3), 6 (3), 8 (2), 9 (2), 10A (1½), 10B (1½), 14 (3), 16 (2).

Public Speaking 2 (2), 3 (2), 4 (2).

Greek 2 (3), 4 (2), 5 (1), 6 (2), 7 (3), 9 (1), 10 (1½), 14A (1), 14B (1), 15 (2), 16 (1), 19 (2).

Latin 2 (3), 4 (2), 5 (2), 6 (2), 7 (1), 7A (1), 8 (1), 9 (2), 10 (2), 13 (2), 15 (2), 16 (1).

German 2A (3), 2B (3), 3 (2), 4 (3), 5 (3), 6 (3), 7A (2), 7B (2).

French 2 (3), 3 (3), 4A (3), 4B (3), 5 (3).

Spanish 1 (3), 2 (3), 3 (2).

Italian 1 (3).

B

History 2 (2), 3 (3), 4 (2), 5 (3), 6 (1), 7 (3), 8 (3), 9 (2), 11 (1), 12A (1), 12B (1), 15 (2).

Philosophy 1 (3), 2 (2), 3 (2), 4 (3), 6 (3).

Economics 1 (3), 4 (3), 5 (2).

Education 1 and 2 (3), 3 (1½), 4 (1½), 5 (1), 6 (1), 7 (1½), 8 (1½), 9 (3), 14 (2).

C

Mathematics 2 (3), 3 (3), 3A (2), 3B (2), 3D (1), 3E (1), 4 (3), 5 (3), 11A (1), 14 (2).

Physics 1 (3), 2 (2), 4 (2), 5 (2), 6 (2), 10 (3), 15 (2).

Chemistry 1 (3), 2 (3), 3 (2), 4 (3), 5 (3), 7 (3), 16 (1½).

Zoology 1 (3), 2 (3), 3 (3).

Botany 1 (3), 2 (3), 3 (3).

Geology 1 (3), 2 (3), 3 (3), 4 (3), 5 (3), 8 (2), 8A (1), 12 (1), 13 (1½)

The selection made must in each case be submitted to Professor Patterson for approval.

Senior Year

ELECTIVE STUDIES amounting to fifteen hours a week, subject to the condition stated above for the Junior Year. In addition to the courses named for Junior Year the following courses are also open to Seniors:

A

English 7 (2), 11 (2), 12 (2).

Greek 17 (1).

Latin 14 (1).

B

History 10 (2).

Economics 2 (2), 3 (2).

Education 10 (1), 11 (1).

Law (3).

C

Mathematics 3C (1), 6 (3), 7 (2), 7A (3), 8 (3), 10 (4), 11B (1),
13 (2), 16 (2).

Physics 11 (4), 12A (1), 12B (1), 13B (1), 14 (3).

Chemistry 5A (2), 6 (1), 7A (2), 7B (2), 8 (5), 17 (3).

Geology 6 (3), 7 (3).

Anatomy 1 (3).

Physiology 1 (1½).

The selection made must in each case be submitted to the Dean of the College of Liberal Arts for approval.

SPECIAL COURSES

ELECTIVE STUDIES may be selected by students who are unable to complete a course leading to the degree. Students intending to pursue these elective studies must prove their qualifications according to the regulations on page 31. After satisfying these entrance requirements, they may elect such studies as they are qualified to pursue.

Special Course for Students Intending to Teach.

FIRST YEAR: English 1 (3), Mathematics 1 (4), History 1 (3), Education 1 and 2 (3); one study from the following group: Latin 1 (4), Greek A (4), Greek 1 (4), French A (3), French 1 (3), German A (3), German 1 (3).

SECOND YEAR: English 2 (3), Physics A (3) or Chemistry 1 (3), Education 3 and 4 (3), Education 5 and 6 (2); electives amounting to a total of six hours from the following group: German, French, Greek, Latin, Mathematics, Geology, Physiology, History.

A certificate will be granted upon the completion of this course.

Special Course Preparatory to Medicine.

English 1 (3), Zoology 1 (3), Physics A (3), Chemistry 1 (3), Chemistry 3A (1½), Chemistry 4A (1).

The prerequisites for this course are the requirements of the ordinary high school course which would admit a student regularly to the University. (See page 31.)

COURSES OF INSTRUCTION

DEPARTMENT OF BOTANY

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*

WILLIAM BATTLE COBB, *Assistant in Botany.*

[For description of Biological Laboratories, see page 193]

1. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor COKER and Mr. COBB.
2. Physiology: a general course in plant physiology; lectures with laboratory and field experiments. Junior and Senior elective. *Both terms, three hours.* Professor COKER and Mr. COBB.
3. Special Morphology of the Algæ and Fungi, with attention to the culture of lower fungi, and the identification of mushrooms; lectures with laboratory and field work. Junior and Senior elective. *Both terms, three hours.* Professor COKER and Mr. COBB.

For Course 4, see Graduate School.

DEPARTMENT OF CHEMISTRY

CHARLES HOLMES HERTY, Ph. D., *Smith Professor of General and Industrial Chemistry.*

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., *Lecturer on the History of Chemistry.*

ALVIN SAWYER WHEELER, Ph. D., *Associate Professor of Organic Chemistry.*

JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*

ROBERT ANDERSON HALL, Ph. D., *Associate Professor of General Chemistry.*

JAMES TALMAGE DOBBINS, A. B., *Fellow in Chemistry.*

WILLIAM LEWIS JEFFRIES, A. B., *Toch Fellow in Chemistry.*

CHARLES WILSON WILLIARD, S. B., *LeDoux Fellow in Chemistry*.

PAUL ROBY BRYAN, *Assistant in Chemistry*.

CARNIE BLAKE CARTER, *Assistant in Chemistry*.

CLARENCE BALLEW HOKE, *Assistant in Chemistry*.

FLEMING ROSS WEAVER, *Assistant in Chemistry*.

[For description of Chemical Laboratories, see page 191]

1. General Descriptive Chemistry: a study of the elements and their compounds, including an introduction to Organic Chemistry; lectures with laboratory work. Required of Sophomores in Group 3, elective in Groups 1 and 2. *Both terms, three hours*. Professor HERTY, Associate Professor HALL, and Mr. BRYAN.

Laboratory fee, \$1.25 a term.

2. Technical Chemistry: (a) Industrial and Agricultural Chemistry; glass-making, acids, alkalies, phosphates, fertilizers, foods, clothing, hygiene, etc. (b) Metallurgy: mining, treatment of ores, smelting, chlorination, fuel, building materials, etc. Junior and Senior elective; prerequisite, Chemistry 1. *Both terms, three hours*. Professor HERTY.

3. Qualitative Analysis: laboratory work with lectures. May be taken with Chemistry 1. Junior and Senior elective. *Both terms, two hours*. Associate Professor WHEELER and Mr. HOKE.

Laboratory fee, \$5.00 a term.

4. Quantitative Analysis and Assaying: laboratory work, lectures, and stoichiometric exercises; a grounding in analytical methods. Junior and Senior elective; prerequisite, Chemistry 1 and 3. *Both terms, three hours*. Associate Professor BELL.

Laboratory fee, \$5.00 a term.

5. Organic Chemistry: Junior and Senior elective; prerequisite, Chemistry 1 and 3. *Both terms, three hours*. Associate Professor WHEELER.

Laboratory fee, \$4.00 a term.

- 5A. Organic Chemistry: laboratory work only. This course is designed to give further practice in dealing with organic substances. The student may choose the general line of work he desires to pursue. Senior elective; prerequisite, Chemistry 5 or 10. *Both terms, two hours.* Associate Professor WHEELER.

Laboratory fee, \$6.00 a term.

6. The History of Chemistry: Senior elective; prerequisite, Chemistry 1, 3, 4, 5. *Spring term, two hours.* President VENABLE.
7. Elementary Physical Chemistry: Junior and Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.* Associate Professor BELL.

Laboratory fee, \$2.00 a term.

- 7A. Physical Chemistry: lectures and text books, with laboratory work. Senior elective; prerequisite, Chemistry 7. *Both terms, two hours.* Associate Professor BELL.
- 7B. Electro-Chemistry: theory and application of electricity to chemical processes. Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, two hours.* Associate Professor BELL.

8. Quantitative Analysis: laboratory work; gas analysis and extension of course 4 along technical lines; bacteriological examination of water (with Professor MacNider); research. Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, five hours.* Professor HERTY.

Laboratory fee, \$10.00 a term.

16. Inorganic Chemistry: a detailed study of the reactions of the elements and their compounds. Lectures and text book. Junior and Senior elective; prerequisite, Chemistry 1, 3, and 4. *Spring term, three hours.* Professor HERTY.
17. Quantitative Analysis: laboratory work. Extension of course 4 along technical lines. Senior elective; pre-

requisite, Chemistry 1, 3, and 4. *Both terms, three hours.* Professor HERTY.

Laboratory fee, \$5.00 a term.

The Journal Club meets fortnightly. The current journals, American, English, German, and French, both the purely scientific and the technical, are reviewed by the students and instructors. Attendance is expected of students in advanced courses.

For courses 3A, 4A, 9, and 10, see School of Medicine and School of Pharmacy.

For courses 11, 12, 13, 14, and 15, see Graduate School.

DEPARTMENT OF ECONOMICS AND FINANCE

CHARLES LEE RAPER, Ph. D., *Professor of Economics.*

1. General Economics: A general study of the principles which are involved in the production, distribution, and consumption of wealth, and the relation of wealth to welfare; a special study of labor, land, capital, business management, and the state, as factors in the production and distribution of wealth. Raper's *Principles of Wealth and Welfare*, and Seligman's *Principles of Economics*. Junior and Senior elective. *Both terms, three hours.* Professor RAPER.
2. Public Finance: A general study of the principles which are involved in the revenues and expenditures of the state, and of the relation of the state to the industries of its citizens; a special study of taxation and the tariff. Lectures, readings, and reports. Adams' *The Science of Finance*. Senior elective. *Both terms, two hours.* Professor RAPER.
Given in alternate years; to be given in 1912-1913.
3. Economic Institutions and Thought in England and the United States: A general study, largely from the historical point of view, of the economic institutions and the systems of economic thought in England and the United States; a special study of socialism. Lectures, readings, and reports. Cheyney's *Industrial and Social History of England*, Brooks' *The Social Unrest*, Spargo's *Socialism*, and the *Communist Manifesto*

(Marx and Engels). Senior elective. *Both terms, two hours.* Professor RAPER.

4. Money, Banking, and Insurance: (a) A general study of the principles, functions, and forms of money and banking; a special study of current monetary problems. Lectures, readings, and reports. Kinley's *Money*, Dunbar's *Theory and History of Banking*, (2nd Ed.), and Jones' *Economic Crises*. (b) A general study of the principles and methods of insurance; a special study of the regulation of insurance by the state. Lectures and readings. Junior and Senior elective. *Both terms, three hours.* Professor RAPER.
5. Transportation and Labor: (a) A general study, from the historical and critical points of view, of railway transportation in such representative countries as Great Britain, France, Italy, Germany, and the United States; the general conditions of traffic, the passenger service and rates, the freight service and rates, and the ideals and machinery of the state's relation receive special consideration. Lectures, readings, and reports. Raper's *Railway Transportation: a History of Its Economics and of the State's Relation*. (b) Labor as an agent in the production of wealth; wages; some wages problems, as, for instance, woman and child labor, immigration, sweating system, and poverty; some of the solutions of these problems, as, for instance, strikes, boycotts, trades unions, conciliation and arbitration, profit-sharing, co-operation, industrial education and the factory acts; the relation of the state to wages problems. Adams and Sumner's *Labor Problems*. Junior and Senior elective. *Both terms, two hours.*

Given in alternate years; to be omitted in 1912-1913.

A certificate is granted to a student who has completed, with credit, courses 1-5.

DEPARTMENT OF EDUCATION.

MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy.*

NATHAN WILSON WALKER, A. B., *Professor of Secondary Education.*

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

LOUIS ROUND WILSON, Ph. D., *Associate Professor of Library Administration.*

1. The Science of Teaching: the practical application of scientific principles to the teaching of elementary branches; a brief study of modern educational theories; preparation of model lessons according to pedagogical principles; lectures, text books, and theses. Junior and Senior elective, open only to those who intend to teach (not counted for a degree unless Education 2 is also taken). *Fall term, three hours.* Professor NOBLE.
2. The Art of Teaching: a careful study of the principles and methods involved in successfully teaching those studies usually taught in the best public and private elementary schools; lectures, text books, and theses. Junior and Senior elective, open only to those who intend to teach; prerequisite, Education 1. *Spring term, three hours.* Professor NOBLE.
3. Science and Practice of Education: a study of modern education from the view-point of both teacher and citizen; the development and arrangement of a High School course of study; lectures, text books, parallel readings, theses. Junior and Senior elective. *Fall term, three hours.* Professor NOBLE.
4. The General History of Education: the development of educational ideals in the past; the effect of the pedagogical doctrines of the great educators of the past upon modern educational systems; lectures, text book, parallel readings, criticisms, theses. Junior and Senior elective. *Spring term, three hours.* Professor NOBLE.

5. High School Organization: a study of the organization of the American high school with special attention to its curricula and methods. Text-books, lectures, and assigned readings. Brown's *The American High School* and DeGarmo's *Principles of Secondary Education*. Open to teachers. *Fall term, two hours*. Professor WALKER.
6. High School Administration: a study of the principles and problems of American high school administration. Text-books, lectures, and assigned readings. Hollister's *High School Administration*. Open to teachers; prerequisite, Education 5: *Spring term, two hours*. Professor WALKER.
7. Educational Psychology: the application of modern psychological theory and discovery to education. Lectures, readings, text. Junior and Senior elective. *Fall term, three hours*. Professor CHASE.
8. Experimental Pedagogy: a more detailed study of the experimental work which is contributing to the solution of educational problems. Lectures, readings. Junior and Senior elective; prerequisite, Education 7. *Spring term, three hours*. Professor CHASE.
9. Educational Classics: a study at first hand of the works of typical great educators, with attention to the social and historical background. Junior and Senior elective. Readings, lectures. *Both terms, three hours*. Professor CHASE.
10. Child Study: the development of the child from birth to adolescence and the significance of child study for education. Lectures, readings, text. Senior elective; prerequisite, Education 1 and 2, or 3, or 7, or an equivalent. *Fall term, two hours*. Professor CHASE.
11. Adolescence: a continuation of the preceding course, dealing with the adolescent changes and their significance. Lectures and text. Senior elective: prerequisite, Education 10. *Spring term, two hours*. Professor CHASE.

14. **Current Education:** a study of present educational tendencies as seen in typical rural and city school systems, and the development and supervision of the American public school. For teachers who wish to prepare for work as principals and superintendents. Junior and Senior elective. *Both terms, two hours.* Professor NOBLE.

For courses 12 and 13, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1 to 4 inclusive, together with either courses 5 and 6 or courses 10 and 11.

Library Administration

1. **Library Administration:** a study of library administration, bibliography, book selection, reading courses, debate references, indexing, and technical library methods; practice in the University library. This course is open to Library Fellows and Assistants; upon the approval of the Executive Committee, it may also be counted for the degree by students preparing for library positions. *Both terms, two hours.* Associate Professor WILSON.

DEPARTMENT OF ENGLISH

THOMAS HUME, D. D., LL. D., *Professor Emeritus of English Literature.*

EDWIN MIMS, Ph. D., *Professor of English.*

EDWARD KIDDER GRAHAM, A. M., *Professor of English.*

JAMES FINCH ROYSTER, Ph. D., *Professor of English.*

GEORGE MCFARLAND MCKIE, A. M., *Associate Professor of Public Speaking.*

JOHN MANNING BOOKER, A. B., *Associate Professor of English.*

GEORGE MARK SNEATH, A. M., *Instructor in English.*

1. **Types of Literature:** the short story, the novel, the essay; the lyric, the epic, the ballad, and the drama. Practical rhetoric and theme writing during the second term. This course lays the foundation for the student's later studies in both literature and composition. Required

- of Freshmen. *Both terms, three hours.* Professor MIMS, Associate Professor BOOKER, and Mr. SNEATH.
2. First term: Rhetoric and Composition; preparation and criticism of daily and weekly themes. Second term: History of English Literature. Reports on assigned readings. Required of Sophomores. *Both terms, three hours.* Professor ROYSTER, Associate Professor BOOKER, and Mr. SNEATH.
 3. Advanced Composition: constant practice throughout the year in the various forms of prose discourse. Lectures and discussions. Junior and Senior elective; prerequisite, a grade of 80 on English 2. *Both terms, three hours.* Professor GRAHAM.
 4. Essays and Orations: lectures; analysis of representative essays and orations; construction of essays and orations. Junior and Senior elective. *Both terms, three hours.* Professor GRAHAM.
 5. Shakespeare. First term: The Rise and Development of the Drama in England, from the Miracle Plays through Marlowe. Second term: A detailed study of four plays of Shakespeare and a rapid reading of the remainder. Junior and Senior elective. *Both terms, three hours.* Professor GRAHAM.
 6. Introductory course in Old English and Middle English. In the first term a careful study is made of Old English grammar and syntax; a large amount of easy Old English prose is read. Text: Bright's *Anglo Saxon Reader*. In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. Texts: Greenough's *Selections from Chaucer*; Emerson's *Middle English Reader*. The primary aim of the whole course is to acquaint the student with the main facts of the beginning and development of the English language. The language of the older periods is considered in its relation to present-day English; many points of confusion in Modern English, unexplained by the

rules of logical grammar, are made clear. Junior and Senior elective. *Both terms, three hours.* Professor ROYSTER.

The attention of students electing this course is called to course 13 in the Latin Department.

7. Advanced course in Old English and Middle English. The work of the first term continues the study of Old English grammar, particularly in its relation to that of the other Indo-European languages, and takes up the reading of Old English poetry. Texts: Wyatt's *Beowulf*; Blackburn's *Exodus and Daniel*. A study of Chaucer's minor poems will be the basis of the work of the second term, 1913. Senior, elective; prerequisite, English 6 or its equivalent. *Both terms, two hours.* Professor ROYSTER.
8. History of the English Language. This course supplements English 6. It will trace the growth of the English language from its beginnings in England until to-day. Junior and Senior elective. *Both terms, three hours.* Professor ROYSTER.
9. The Contemporary Drama. In this course the condition of the stage and the character of the plays in England from 1840 to the present day will be sketched. The lectures will deal particularly with the imitation and adaptation of French plays, the attempts to put into dramatic form problems of contemporary life and manners, the sociological and artistic tendencies of the modern drama, the manifestations of decadence, the influence of Ibsen, the recent German drama, the literary drama, and the present day outlook. Representative modern dramas will be assigned for reading. Junior and Senior elective. *Both terms, two hours.* Professor ROYSTER.
- 10A. American Literature. Special attention to the literature of New England (1825-1892) and to Southern literature since the Civil War. Junior and Senior elective. *Fall term, three hours.* Professor MIMS.

- 10B. English Fiction in the Nineteenth Century. The historical development of the novel and the short story, with special attention to Scott, Thackeray, George Eliot, Stevenson, and Kipling. Junior and Senior elective. *Spring term, three hours.* Professor MIMS.
11. Seventeenth Century Literature. In the main, a comprehensive study of the writings of John Milton, considered in relation to the literature and history of the Civil War. A graduate course open to Seniors. *Both terms, two hours.* Professor MIMS.
- This course alternates with course 12.
12. Eighteenth Century Literature. A study of the development of English prose, of the poetry of the Classical School, and of the beginnings of the Romantic Movement. A graduate course open to Seniors. *Both terms, two hours.* Professor MIMS.
- This course alternates with course 11; to be given in 1912-1913.
14. Nineteenth Century English Poetry: emphasis in the first term on Wordsworth, Byron, and Shelley, and in the second on Matthew Arnold, Tennyson, and Browning. Junior and Senior elective. *Both terms, three hours.* Professor MIMS.
16. Journalism. Extensive practice in the forms of journalistic composition. Junior and Senior elective. *Both terms, two hours.* Professor ROYSTER.

A certificate is granted to a student who has completed with an average grade of not less than 85 courses 1, 2, 6, and six hours of additional elective work.

Public Speaking.

1. A course in declamation and in simple extempore speaking on subjects of current interest. The aim of this course is to correct faults in speech and to form the habit of simple, clear, direct speaking. Required of Freshmen. *Both terms, one hour.* Associate Professor McKIE.
2. The Forms of Public Address: the argumentative speech, the commemorative address, the after dinner speech,

the eulogy. Open to Sophomores who have attained a grade of 2 in English 1, and to Juniors and Seniors; prerequisite, Public Speaking 1. *Both terms, two hours.* Associate Professor McKIE.

3. Debate: the preparation of briefs and forensics, and practice in oral debate. Junior and Senior elective; prerequisite, Public Speaking 1. *Both terms, two hours.* Associate Professor McKIE.
4. Interpretative Speaking and Reading: a course designed to develop through vocal expression an appreciation of good literature, and an ability to interest others in the works of great writers. Open to Sophomores who have attained a grade of 2 in Public Speaking 1, and to Juniors and Seniors. *Both terms, two hours.* Associate Professor McKIE.

DEPARTMENT OF GEOLOGY AND MINERALOGY

COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*

JOSEPH HYDE PRATT, Ph. D., *State Geologist and Professor of Economic Geology.*

WILLIAM HENRY FRY, S. B., *Instructor in Geology.*

CHARLES ALEXANDER VOGLER, A. B., *Assistant in Geology.*

[For description of Geological Laboratories, see page 194]

1. Elementary Geology: lectures with field work; laboratory work on the common minerals and rocks. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor COBB and Mr. VOGLER.

Laboratory fee, \$3.00 for the spring term.

2. Mineralogy: lectures with laboratory and field work; Crosby's *Tables* and Dana's *Text-Book of Mineralogy*. Junior and Senior elective; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. FRY.

Laboratory fee, \$5.00 a term.

3. General Critical Geology: lectures with field work; laboratory work on rocks and fossils; theses. Junior and Senior elective. *Both terms, three hours.* Professor COBB.

Laboratory fee, \$3.00 for the fall term, \$5.00 for the spring term.

4. Economic Geology: ore deposits and minerals; lectures with laboratory and field work; Junior and Senior elective; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. FRY.

Laboratory fee, \$1.00 a term.

5. Petrography: lectures, laboratory work, and theses. Junior and Senior elective; prerequisite, Geology 1 and 2. *Both terms, three hours.* Mr. FRY.

6. Advanced field work and special research in Geology or Geography: problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Senior elective; prerequisite, two courses in Geology. *Both terms, three hours.* Professor COBB.

7. Advanced course in Physiography. Senior elective; prerequisite, Geology 1 and Zoology 1 or Botany 1. *Both terms, three hours.* Professor COBB.

Laboratory fee, \$2.00 a term.

8. Origin and Nature of Soils: field work, laboratory work, and theses. Students in this course are expected to keep Saturday open for field work. Junior and Senior elective; prerequisite, Geology 1 and 2, Chemistry 1 and 3, Botany 1. *Both terms, two hours.* Professor COBB.

Laboratory fee, \$3.00 a term.

- 8A. Soils and Stones for Road Making: field work, laboratory work; prerequisite, Geology 1. *Both terms, one hour.* Professor COBB.

Laboratory fee, \$1.00 a term.

11. Mineral and Ore Deposits: lectures supplemented by laboratory and field work; prerequisite, Geology 1 and 2 and Chemistry 3. *Twenty-four lectures (Spring term).* Professor PRATT.

12. Advanced Work in Mineralogy. Senior elective. *One hour.* Professor PRATT.

13. Advanced Geological Field Work and Special Research: studies in the Deep River and Wadesboro areas of the Triassic rocks; a brief examination of the Potomac, Eocene, Lafayette, and Columbia deposits. This course is given in the summer. It covers five weeks, of which one is spent in Chapel Hill with daily meetings, the remaining four weeks are devoted to field work. Students who take this course will be expected to devote all their time to it. Junior and Senior elective. *One term, three hours.* Professor COBB.

The Geological Seminary meets fortnightly for review and discussion of current geological literature, and for the presentation of original papers.

For course 9, see Graduate School.

DEPARTMENT OF GERMANIC LANGUAGES

WALTER DALLAM TOY, M. A., *Professor of the Germanic Languages and Literatures.*

GEORGE BURRIDGE VILES, Ph. D., *Associate Professor of Germanic Languages and Literatures.*

CYRUS DUNLAP HOGUE, A. B., *Assistant in German.*

- A. Elementary Course: grammar; written and oral exercises; translation; sight reading. This course may be counted for entrance only. *Both terms, three hours.* Professor TOY, Associate Professor VILES, and Mr. HOGUE.
1. Translation, sight reading, composition, grammar. Required of Freshmen in Group 3, elective in Group 2; Sophomore elective. *Both terms, three hours.* Professor TOY and Associate Professor VILES.
- 2A. Schiller: Maria Stuart, Wallenstein's Tod; Goethe: Egmont, Iphigenie auf Tauris; Lessing: Minna von Barnhelm. Sophomore elective in Group 2; Junior and Senior elective; prerequisite, German 1. *Both terms, three hours.* Professor TOY.
- 2B. Wide reading of modern German prose, with lectures on the literature in the nineteenth century since Goethe's

death. Junior and Senior elective; prerequisite, German 1. *Both terms, three hours.* Associate Professor VILES.

3. History of German Literature: lectures with parallel reading and written reports. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, two hours.* Professor Toy.
4. Middle High German: Paul's *Mittelhochdeutsche Grammatik*; Bachmann's *Mittelhochdeutsches Lesebuch*; translation into New High German. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, three hours.* Associate Professor VILES.

This course alternates with course 5; to be given in 1912-1913.

5. Old High German: Braune's *Althochdeutsche Grammatik*; Braune's *Althochdeutsches Lesebuch*. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, three hours.* Associate Professor VILES.

This course alternates with course 4; to be omitted in 1912-1913.

6. Gothic: Braune's *Gotische Grammatik*; selected parts of Paul's *Grundriss der Germanischen Philologie*. Introduction to Germanic Philology. Junior and Senior elective; prerequisite, German 2A, or 2B, or 3. *Both terms, three hours.* Professor Toy.

- 7A. Goethe: Goetz von Berlichingen, Tasso, Dichtung und Wahrheit, Hermann und Dorothea. Junior and Senior elective; prerequisite, German 2A, or 2B, or 3. *Both terms, two hours.* Associate Professor VILES.

This course may be elected only after consultation with the instructor.

- 7B. Goethe: Faust, Parts I and II. Junior and Senior elective; prerequisite, German 2A, or 2B, or 3. *Both terms, two hours.* Professor Toy.

This course may be elected only after consultation with the instructor. To be omitted in 1912-1913.

A certificate is granted to a student who has completed with credit any four courses exclusive of course A.

DEPARTMENT OF GREEK

CHARLES WESLEY BAIN, M. A., *Professor of the Greek Language and Literature.*

WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*

- A. A course for students who have had no opportunity of studying Greek in the preparatory schools. This course may be counted for entrance only. Moss's *First Greek Reader*; Babbitt's *Greek Grammar*; Xenophon's *Anabasis*. *Both terms, four hours.* Associate Professor BERNARD.
1. Xenophon's Symposium and Hellenica: review of important grammatical principles; Homer's Iliad, books I, II, and III, and Odyssey, book VI; reading at sight. Required of Freshmen in Group 1, elective in Group 2. *Both terms, four hours.* Professor BAIN and Associate Professor BERNARD.
2. Lysias, Selected Speeches; Plato, Apology and Crito; Euripides, Medea; reading at sight; lectures on Greek Literature. Sophomore elective in Groups 1 and 2. *Both terms, three hours.* Professor BAIN.
3. Prose Composition: elementary course, intended as supplementary to Greek 1. Open to students who are taking Greek 1 or 2. *Both terms, one hour.* Professor BAIN.
4. Lectures on Old Greek Life: History of Greek Art; textbook and lectures. Junior and Senior elective. *Both terms, two hours.* Professor BAIN.
5. Modern Greek: Rangabe's Handbook; Bikelas' Stories; Newspapers. Junior and Senior elective. *Spring term, two hours.* Professor BAIN.
6. Homer: rapid reading of the entire Odyssey. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.
7. Greek Drama: Euripides, Iphigenia Among the Taurians; Sophocles, Oedipus Tyrannus; Aeschylus, Agamem-

non; Aristophanes, *Clouds*; Aristotle, *Poetics*. Junior and Senior elective. *Both terms, three hours*. Professor BAIN.

9. Demosthenes, three *Philippics*. Junior and Senior elective. *Spring term, two hours*. Professor BAIN.
10. Thucydides, Book I. Junior and Senior elective. *Fall term, three hours*. Professor BAIN.
- 14A. The Greek New Testament: The Acts of the Apostles, study of grammar and diction, comparison with English versions. Junior and Senior elective; prerequisite, Greek 2. *Fall term, two hours*. Associate Professor BERNARD.
- 14B. The Greek New Testament: The Gospels; selections from the Epistles and Revelation; the principles of textual criticism; sources of the Greek text with history of the text and versions. Junior and Senior elective; prerequisite, Greek 14A. *Spring term, two hours*. Associate Professor BERNARD.
15. Classical Archæology: History and principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours*. Associate Professor BERNARD.

This course is the same as Latin 15.

16. Classical Archæology: Ancient Rome and Athens: a brief survey of the topography and monuments of the two cities. Lectures with prescribed reading. Junior and Senior elective; open also to Sophomores taking Greek 2 and Latin 2. *Fall term, two hours*. Associate Professor BERNARD.

This course is the same as Latin 16.

17. Greek Epigraphy and Palæography: a brief introduction to the study of Greek inscriptions and manuscripts. Lectures and reports. Senior elective. *Spring term, two hours*. Professor BAIN.

The attention of students electing this course is called to course 14 in the Latin Department.

19. Indo-European Philology: introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palæontology. Junior and Senior elective. *Both terms, two hours.* Associate Professor T. J. WILSON, JR.

The attention of students electing this course is called to courses 6 and 8 in the Department of English and to course 6 in the Department of Germanic Languages. The course is the same as Latin 13.

For courses 8, 11, 12, and 18, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1, 2, 3, and four hours of elective work.

DEPARTMENT OF HISTORY

KEMP PLUMMER BATTLE, LL. D., *Professor Emeritus of History.*

JOSEPH GREGOIRE DE ROULHAC HAMILTON, Ph. D., *Alumni Professor of History.*

HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of History.*

DANIEL HUGER BACOT, JR., A. M., *Instructor in History.*

1. American History: a general course covering the social, political, and economic development of the United States; text-books, lectures, and readings. Required of Freshmen in Groups 2 and 3. *Both terms, three hours.* Professors HAMILTON and WAGSTAFF, and Mr. BACOT.
2. Mediæval European History: a general course covering the period, 400-1648; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.* Professor WAGSTAFF.
3. English History: a general course; text-books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor WAGSTAFF.
4. Modern European History: a general course covering the period, 1648-1900; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.* Professor WAGSTAFF.

To be omitted in 1912-1913.

5. The English Constitution and Government: a careful study of English constitutional development and the present government of the English people. Lectures, text-books, and readings. Junior and Senior elective. *Both terms, three hours.* Professor HAMILTON.

This course alternates with course 7.

6. North Carolina History: a general study of the constitutional, political, and economic development of the State in the period since the Revolution; lectures, readings, and reports. Junior and Senior elective. *Spring term, two hours.* Professor HAMILTON.
7. The American Government and Constitution: a detailed study of the political customs and institutions of the American people; followed in the spring term by a careful study of the Constitution of the United States by means of cases. Text-books, lectures, and readings. Junior and Senior elective. *Both terms, three hours.* Professor HAMILTON.

This course alternates with course 5; to be omitted in 1912-1913.

8. Classical History: a general course dealing largely with the Greeks and Romans; text books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Mr. BACOT.
9. Spanish-American History 1492-1909: the course especially emphasizes the history of the leading Spanish-American countries from their revolutionary period to the present; lectures, text-books, and readings. Junior and Senior elective; open also to Sophomores. *Both terms, two hours.* Professor WAGSTAFF.
10. Civil War and Reconstruction: a detailed study of the constitutional, political, and economic phases of the period of Civil War and Reconstruction; lectures, readings, and reports. Senior elective; prerequisite, History 1 or History 11. *Both terms, two hours.* Professor HAMILTON.
11. The Middle Period: a careful study of the leading movements in the United States from the adoption of the

Constitution to 1850; lectures, readings, and reports. Junior and Senior elective. *Fall term, two hours.* Professor HAMILTON.

- 12A. The Protestant Revolt: a detailed study of the causes, progress, and results of the Protestant movement, with special attention to the lives, doctrines, and influence of Luther and Calvin; text-books, lectures, and readings. Junior and Senior elective. *Fall term, two hours.* Mr. BACOT.

To be omitted in 1912-1913.

- 12B. The French Revolution: a detailed study of the causes, progress, and results of the Revolution; text-books, lectures, and readings. Junior and Senior elective. *Spring term, two hours.* Mr. BACOT.

To be omitted in 1912-1913.

15. Modern Municipal Government: a course dealing with urban development and problems in Europe and the United States during the nineteenth century; lectures, readings, and discussion. Junior and Senior elective. *Both terms, two hours.* Mr. BACOT.

A certificate is granted to a student who has completed with credit fifteen hours in History.

For courses 13 and 14 see Graduate School.

DEPARTMENT OF LATIN

GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*

THOMAS JAMES WILSON, JR., Ph. D., *Associate Professor of Latin.*

GEORGE KENNETH GRANT HENRY, A. M., *Instructor in Latin.*

WILLIAM RENN THOMAS, A. B., *Fellow in Latin.*

1. Cicero, *De Senectute* and *De Amicitia*; Livy, Book I; Horace, *Odes* and *Epodes*. Required of Freshmen in Group 1, elective in Group 2. *Both terms, four hours.* Professor HOWE, and Messrs. HENRY and THOMAS.

2. Plautus, Menæchmi; Terence, Phormio; Horace, Satires and Epistles; Tacitus, Agricola and Germania. Sophomore elective in Groups 1 and 2. *Both terms, three hours.* Associate Professor WILSON and Mr. HENRY.
3. Latin Prose Composition: based on Cicero and Livy; intended as supplementary to Latin 1. Open to students who are taking Latin 1 or 2. *Both terms, one hour.* Associate Professor WILSON.
4. Latin Comedy: reading of selected plays of Plautus and Terence, with a study of the historical development of ancient comedy. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.
This course alternates with course 6; to be omitted in 1912-1913.
5. Pliny, selected Letters; Juvenal, Satires; Martial, selected Epigrams: reading with special reference to the private life of the Romans at the close of the first century A. D. Junior and Senior elective. *Both terms, two hours.* Professor HOWE.
This course alternates with course 9.
6. Cicero: rapid reading of the philosophical works, De Officiis and Tusculan Disputations, and of the rhetorical works, Brutus and De Oratore. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.
This course alternates with course 4.
7. Roman Political Institutions: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Fall term, two hours.* Professor HOWE.
This course alternates with course 7A; to be omitted in 1912-1913.
- 7A. The Private Life of the Romans: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Fall term, two hours.* Professor HOWE.
This course alternates with course 7.
8. History of Roman Literature: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Spring term, two hours.* Professor HOWE.

9. Roman Elegiac Poets: rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives of the elegists; the history of Greek and Roman elegy. Junior and Senior elective. *Both terms, two hours.* Professor HOWE.

This course alternates with course 5; to be omitted in 1912-1913.

10. A Course for Teachers: embracing pronunciation, prosody, the art of reading Latin, and a classification of moods and tenses. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.
13. Indo-European Philology: introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palæontology. Lectures. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.

The attention of students electing this course is called to courses 6 and 8 in the Department of English and to course 6 in the Department of Germanic Languages. The course is the same as Greek 19.

14. Latin Epigraphy and Palæography: a brief introduction to the study of Latin inscriptions and manuscripts. Lectures and reports. Senior elective. *Fall term, two hours.* Professor HOWE.

The attention of students electing this course is called to course 17 in the Department of Greek.

15. Classical Archæology: History and Principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.

This course is the same as Greek 15.

16. Classical Archæology: Ancient Rome and Athens: a brief survey of the topography and monuments of the two cities; lectures with prescribed reading. Junior and Senior elective; open also to Sophomores taking Greek 2 and Latin 2. *Fall term, two hours.* Associate Professor BERNARD.

This course is the same as Greek 16.

For courses 11 and 12, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1, 2, and 3, and six hours of elective work.

DEPARTMENT OF MATHEMATICS

WILLIAM CAIN, A. M., *Professor of Mathematics.*

ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

THOMAS FELIX HICKERSON, A. M., *Associate Professor of Civil Engineering.*

THEOPHILUS RANDOLPH EAGLES, JR., A. B., *Instructor in Mathematics.*

JOHN WAYNE LASLEY, JR., A. B., *Instructor in Mathematics.*

JOHN ELLIOTT WOOD, A. B., *Instructor in Drawing.*

JOHN BURTON CLINGMAN, *Assistant in Surveying.*

1. Algebra: from Quadratics through Theory of Equations (Fine's *College Algebra*); Plane and Spherical Trigonometry and Logarithms. Required of Freshmen. *Both terms, four hours.* Professor HENDERSON, Associate Professor HICKERSON, and Messrs. EAGLES and LASLEY.
2. Brief Course in Conic Sections: (Smith and Gale's *Analytic Geometry*); Elementary Course in Differential and Integral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomore's in Group 3, elective in Groups 1 and 2. *Both terms, three hours.* Professors CAIN and HENDERSON.
3. Surveying (Raymond) and Higher Surveying, Drawing. Junior and Senior elective; prerequisite, Mathematics 1. *Both terms, three hours.* Professor STACY and Mr. WOOD.
- 3A. Elementary Mechanics (Loney). Junior and Senior elective; prerequisite, Mathematics 1. *Both terms, two hours.* Professor STACY.

- 3B. Graphics: Descriptive Geometry (Church); Shades, Shadows, and Perspective (Mitchell); lectures and plates. Junior and Senior elective. *Both terms, two hours.* Mr. WOOD.
- 3C. Stereotomy: a course in the application of Descriptive Geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers and culverts. A study of warped surfaces and drawings for the helicoidal arch. Senior elective; prerequisite, Mathematics 3B. *Spring term, two hours.* Mr. WOOD.
- 3D. Theory of Equations. Sophomore, Junior and Senior elective; prerequisite, Mathematics 1. *Fall term, two hours.* Professor HENDERSON.
- 3E. Differential Equations: elementary course. Junior and Senior elective; prerequisite, fall term of Mathematics 4. *Spring term, two hours.* Professor HENDERSON.
- 4. Calculus, Analytic Mechanics. Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.
- 5. Theory of Equations (Burnside and Panton). Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, three hours.* Professor HENDERSON.
- 6. Differential Equations (Murray). Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.* Professor HENDERSON.
- 7. Road and Railroad Surveying and Engineering. Senior elective; prerequisite, Mathematics 3. *Both terms, two hours.* Professor STACY.
- 7A. Hydraulics and Sanitary Engineering. Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.* Professor STACY.
- 8. Mechanics of Materials. Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.* Professor CAIN.

10. Theory of Structures. Senior elective; prerequisite, Mathematics 4. *Both terms, four hours.* Associate Professor HICKERSON.
- 11A. Retaining Walls and Dams. Junior elective; prerequisite, Mathematics 2. *Both terms, one hour.* Professor CAIN.
- 11B. Arches. Senior elective; prerequisite, Mathematics 4. *Both terms, one hour.* Professor CAIN.
13. Design of Structures. Senior elective; may be taken in connection with Mathematics 8 and 10. *Spring term, four hours.* Associate Professor HICKERSON.
14. Brief Course in Strength of Materials and Stresses and Trusses. Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, two hours.* Professor STACY.
16. Road Construction and Drainage; Road Location. Prerequisite Mathematics 3. *Both terms, two hours.* Associate Professor HICKERSON.

For additional courses, see Graduate School.

Drawing.

1. Freehand and Mechanical Drawing: (a) Freehand drawing; sketching from dictation, sketching of geometrical figures, sketching from flat copy and from models; application of rules of perspective and light and shade. (b) Lettering: Freehand and mechanical lettering. (c) Mechanical drafting; the use of instruments; geometrical drafting; orthographic projection; elementary working drawings. Text-books: Anthony's *Mechanical Drawing*; Reinhardt's *Freehand Lettering*. Not counted for the degree. *Both terms, two hours.* Mr. WOOD.
2. Mechanical and Topographical Drawing: (a) Mechanism and valve-gears, including the design of cams, gears, slide valves, etc.; dimensions and working drawings of machines from measurements. (b) Topography: topo-

graphical symbols, map drawing in pen and ink and colors. Text-books: Spooner's *Machine Drawing and Design* and Daniels' *Topographical Drawing*. Not counted for the degree. *Both terms, two hours.* Mr. WOOD.

- 2A. Mechanical Drawing: working drawings; tracings; blue-prints; structural work; teaching systems of dimensioning; conventional representations; topographical drawing; conventional signs and plotting. Text-books: Anthony's *Machine Drawing*; Daniels' *Topographical Drawing*. Not counted for the degree. *Both terms, two hours.* Mr. WOOD.
3. Mechanical Drawing: machine drafting, work drawings; tracing and blue prints of machine details; assembly drawing; machine design; complete shop and erection drawing with bill of material, in accordance with modern drafting-room systems and standards. Not counted for the degree; prerequisite, Drawing 1 and 2. *Both terms, two hours.* Mr. WOOD.
5. Advanced Freehand Drawing: charcoal and crayon, pen and ink, brush drawing: lectures. Not counted for the degree. *Both terms, two hours.* Mr. WOOD.
6. Theory of Perspective: lectures and plates. Not counted for the degree. *Both terms, two hours.* Mr. WOOD.
7. Structural Drafting: standard rolled sections, conventional riveting signs, standard connections, methods of framing and detailing structural work, beams, columns, plate girders, roof trusses, bridge details. Not counted for the degree. *Both terms, two hours.* Mr. WOOD.

DEPARTMENT OF PHILOSOPHY

HENRY HORACE WILLIAMS, A. M., B. D., *Professor of Philosophy.*

1. Psychology: lectures, with text-books. Junior and Senior elective. *Both terms, three hours.* Professor CHASE.

2. Logic: lectures, with text-books; the study of logic in life. Junior and Senior elective. *Both terms, two hours.* Professor WILLIAMS.
3. Ethics: criticism and discussions. Junior and Senior elective. *Both terms, two hours.* Professor WILLIAMS.
4. Philosophy: lectures; theses; a study of the forces that shape life. Junior and Senior elective. *Both terms, three hours.* Professor WILLIAMS.
6. A Companion Course to Philosophy 4. The aim of the course is to sketch the forces masterful in modern life. Junior and Senior elective. *Both terms, three hours.* Professor WILLIAMS.

For course 5, see Graduate School.

DEPARTMENT OF PHYSICS

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

CALEB KNIGHT BURGESS, *Assistant in Physics.*

[For description of Physical Laboratories, see page 190]

- A. Elementary Physics: lectures, with text-book, weekly written reviews, laboratory work. May be counted for entrance; open also to students in the Schools of Medicine and Pharmacy. *Both terms, three hours.* Mr. CHRISLER.

Laboratory fee, 50 cents a term.

1. General Physics: lectures, with text-books; problems; laboratory work. Required of Sophomores in Group 3; elective in Groups 1 and 2; prerequisite, Mathematics 1. *Both terms, three hours.* Professor PATTERSON.

Laboratory fee, \$1.25 a term.

2. Modern Electrical Theory: the electron theory, electrolysis, conduction of electricity through gases, electrical nature of matter, radioactivity; lectures and recita-

tions. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.

4. Study of Electricity and Magnetism: with laboratory work; Franklin and MacNutt's *Electricity and Magnetism*. Junior and Senior elective. *Both terms, two hours.* Professor PATTERSON.

Laboratory fee, \$2.00 a term.

5. Descriptive Astronomy: a general course; lectures and recitations with use of lantern slides. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.

6. Advanced Heat and Thermodynamics: This study is based on Edser's *Heat for Advanced Students*, Ewing's *The Steam Engine and Other Heat Engines*, and Peabody's *Thermodynamics of the Steam Engine*. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.

10. The Elements of Electrical Engineering: an introductory course in the theory and practical operation of direct and alternating current machines and apparatus. Franklin and Esty's *Elements of Electrical Engineering*, Vols. I and II. Laboratory work one afternoon a week. Junior and Senior elective; prerequisite, a grade of 80 in spring term of Physics 1. *Both terms, three hours.* Associate Professor DAGGETT.

Laboratory fee, \$2.00 a term.

11. Alternating Currents and Alternating Current Machinery: lectures and problem work; testing and study of alternating current machines in the laboratory. Reference-book: Steinmetz's *Alternating Current Phenomena*. Senior elective; prerequisite, Physics 10 and Mathematics 4. *Both terms, four hours.* Associate Professor DAGGETT.

Laboratory fee, \$2.50 a term.

- 12A. Illuminating Engineering: theoretical and practical study of modern light sources, both gas and electric. Wickenden's *Illumination and Photometry*. Senior elective;

prerequisite, Physics 10. *Fall term, two hours.* Associate Professor DAGGETT.

- 12B. Electric Power Transmission: a study of the theory, construction, and operation of modern low and high tension circuits for the transmission of power. Senior elective; prerequisite, fall term of Physics 11. *Spring term, two hours.* Associate Professor DAGGETT.

- 13B. Electric Design: fundamental principles of the design of electrical machinery; lectures, calculations, preparation of drawings and specifications. Reference-books: Hawkins and Wallis' *The Dynamo*, Hobart's *Dynamo Design*, Hobart and Ellis' *High Speed Dynamo Electric Machinery*. Senior elective; prerequisites, Physics 11 and 14. *Spring term, two hours.* Associate Professor DAGGETT.

14. Electrical Engineering Laboratory: calibration of instruments, testing of electric lamps and storage batteries; di-electric tests; dynamo and motor characteristics; regulation; efficiency; heating. Swenson and Frank-
enfield's *Testing of Electro-Magnetic Machinery*. Senior elective; prerequisite, Physics 10. *Both terms, three hours.* Associate Professor DAGGETT.

Laboratory fee, \$5.00 a term.

15. Steam Engineering: boilers, furnaces, steam pumps, and other boiler room accessories; steam engines, valves, and valve-gears; steam turbines; gas and oil engines, gas producers. Lectures, problems, and laboratory work in the University Power Station; Allen and Bursley's *Heat Engines*. Junior elective; prerequisites, Drawing 1 and Physics 1. *Both terms, two hours.* Associate Professor DAGGETT.

Laboratory fee, \$2.50 a term.

For courses for graduate students, see Graduate School.

DEPARTMENT OF ROMANCE LANGUAGES

WILLIAM MORTON DEY, Ph. D., *Professor of the Romance Languages and Literatures.*

OLIVER TOWLES, A. B., *Associate Professor of the Romance Languages.*

JOHN NOTTINGHAM WARE, A. M., *Instructor in the Romance Languages.*

French

- A. Elementary Course: grammar; pronunciation taught by the phonetic method; oral and written exercises; translation and reading at sight. This course may be counted for entrance only. *Both terms, three hours.* Associate Professor TOWLES and Mr. WARE.
1. Continuation of Course A: grammar; composition; reading of modern French literature. Required of Freshmen in Group 3; elective in Group 2; Sophomore elective. *Both terms, three hours.* Associate Professor TOWLES and Mr. WARE.
 2. Advanced Course: studies in reading and writing French, and in pronunciation; French phonetics. Sophomore elective in Group 2; Junior and Senior elective; prerequisite, French 1. *Both terms, three hours.* Professor DEY.
 3. French Literature: a general outline of its various periods. Lectures, reading, reports. Junior and Senior elective; prerequisite, French 2. *Both terms, three hours.* Associate Professor TOWLES.
 - 4A. French Literature in the Seventeenth Century: Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.* Associate Professor TOWLES.
This course alternates with course 4B.
 - 4B. French Literature in the Eighteenth Century: Lectures, reading, reports. Junior and Senior elective; prerequi-

site, French 3. *Both terms, three hours.* Professor DEY.

This course alternates with course 4A; to be omitted in 1912-1913.

5. French Literature in the Nineteenth Century: Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.* Professor DEY.

A certificate is granted to a student who has completed with credit any four courses exclusive of course A.

For courses for graduate students, see Graduate School.

Spanish

1. Elementary Course. grammar; pronunciation; oral and written exercises; translation and reading at sight. Junior and Senior elective. *Both terms, three hours.* Professor DEY.
2. Second Year Course: wide reading of representative writers of the eighteenth and nineteenth centuries; grammar; composition based on selected texts. Junior and Senior elective; prerequisite, Spanish 1. *Both terms, three hours.* Professor DEY.
3. Spanish Literature in the Sixteenth and Seventeenth Centuries: Cervantes, Lope de Vega, Calderon. Junior and Senior elective; prerequisite, Spanish 2. *Both terms, two hours.* Professor DEY.

Italian

1. Elementary Course: grammar, pronunciation; oral and written exercises; translation and reading at sight. Junior and Senior elective. *Both terms, three hours.* Associate Professor TOWLES.

DEPARTMENT OF ZOOLOGY

HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*

WESLEY CRITZ GEORGE, A. B., *Assistant in Zoology.*

LEE FRANKLIN TURLINGTON, A. B., *Assistant in Zoology.*

[For description of Biological Laboratories, see page 193]

1. General Zoology: an introductory course giving an outline of the classification and structure of animals, with

consideration of the fundamentals of histology, embryology, and physiology, and some consideration of biological theories; lectures with laboratory work. Sophomore, Junior, and Senior elective, and open to First Year Medical students. *Both terms, three hours.* Professor WILSON and Mr. GEORGE.

2. Comparative Anatomy and Embryology of the Vertebrates: study of types of fishes, amphibia, reptiles, birds, mammals; development of the characteristic vertebrate organs in the frog and chick; fundamentals of microscopic technique; laboratory work with occasional lectures. Junior and Senior elective. *Both terms, three hours.* Professor WILSON and Mr. TURLINGTON.
3. Comparative Anatomy and Embryology of the Invertebrates: dissection and microscopic study of types of the chief orders, with some consideration of their embryology; laboratory work with occasional lectures. Junior and Senior elective. *Both terms, three hours.* Professor WILSON.

A certificate is granted to a student who has completed with credit courses 1, 2, and 3, and Botany 1.

SCHOOL OF APPLIED SCIENCE

FACULTY

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., PRESIDENT.
ANDREW HENRY PATTERSON, A. M., DEAN.

WILLIAM CAIN, C. E., *Professor of Mathematics.*
COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*
JOSEPH HYDE PRATT, Ph. D., *Professor of Economic Geology.*
CHARLES HOLMES HERTY, Ph. D., *Professor of General and Industrial Chemistry.*
ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*
ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*
MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*
ALVIN SAWYER WHEELER, Ph. D., *Associate Professor of Organic Chemistry.*
THOMAS FELIX HICKERSON, A. M., *Associate Professor of Civil Engineering.*
PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*
JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*
ROBERT ANDERSON HALL, Ph. D., *Associate Professor of General Chemistry.*
VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*
THEOPHILUS RANDOLPH EAGLES, JR., A. B., *Instructor in Mathematics.*
WILLIAM HENRY FRY, A. B., *Instructor in Geology.*
JOHN WAYNE LASLEY, JR., A. B., *Instructor in Mathematics.*
JOHN ELLIOTT WOOD, A. B., *Instructor in Drawing.*
JAMES TALMAGE DOBBINS, A. B., *Fellow in Chemistry.*
WILLIAM LEWIS JEFFRIES, A. B., *Toch Fellow in Chemistry.*
CHARLES WILSON WILLIARD, S. B., *LeDoux Fellow in Chemistry.*

PAUL ROBY BRYAN, *Assistant in Chemistry.*
 CARNIE BLAKE CARTER, *Assistant in Chemistry.*
 CLARENCE BALLEW HOKE, *Assistant in Chemistry.*
 FLEMING ROSS WEAVER, *Assistant in Chemistry.*
 CHARLES ALEXANDER VOGLER, A. B., *Assistant in Geology.*
 CALEB KNIGHT BURGESS, *Assistant in Physics.*
 JOHN BURTON CLINGMAN, *Assistant in Surveying.*

COURSES LEADING TO THE DEGREE OF BACHELOR OF SCIENCE

In order to be recommended for the degree of Bachelor of Science, the student must have passed satisfactory examinations in all the studies required in one of the following courses outlined in this department, I, II, III, IV, and V. Each course combines instruction in certain sciences and their application to the arts with certain other general studies deemed essential to a liberal education. These courses are designed to furnish the fundamental instruction and to prepare students to pursue the technical professions to which they lead. The courses leading to the degree are five in number; course IIIA is a special course.

- I. Bachelor of Science in Chemical Engineering.
- II. Bachelor of Science in Electrical Engineering.
- III. Bachelor of Science in Civil Engineering.
- IIIA. Road Engineering.
- IV. Bachelor of Science in Medicine.
- V. Bachelor of Science in Soil Investigation.

ADMISSION

Candidates for admission to the School of Applied Science must present 14 units for entrance. A complete list of these units and the requirements in each subject will be found on pp. 32-37 of the general catalogue.

The specific requirements are as follows:

English <i>a, b</i> ,	3. units
History <i>a</i> or <i>b</i> ,	2. units
Mathematics <i>a, b, c</i> ,	3. units

French <i>a</i> or German <i>a</i> ,	2. units
Science	1. unit
Elective,	3. units

At least 12 units must be offered.

I. BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

FRESHMAN YEAR

English 1, Composition.....	*(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
German 1, Translation and Composition.....	(3)
Chemistry 1, General Chemistry.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR

English 2, Composition and Literature.....	(3)
Mathematics 2, Analytics and Calculus.....	(3)
Chemistry 3, Qualitative Analysis.....	(2)
Chemistry 4, Quantitative Analysis and Assaying.....	(3)
Physics 1, General Course.....	(3)
Drawing 2A, Mechanical and Topographical.....	(2)

JUNIOR YEAR.

Chemistry 16, Inorganic Chemistry, advanced.....	(1½)
Chemistry 2, Technical Chemistry.....	(3)
Chemistry 17, Quantitative Analysis, advanced.....	(3)
Chemistry 5, Organic Chemistry, advanced.....	(3)
Chemistry 7, Elementary Physical Chemistry.....	(3)
Geology 1, General Course.....	(3)
Physics 15, Steam Machinery.....	(1)

SENIOR YEAR.

Chemistry 6, Theories of Chemistry.....	(1)
Chemistry 5A, Organic Chemistry.....	(2)
Select { Chemistry 7A, Physical Chemistry, advanced..	(2)
one { Chemistry 7B, Electro-Chemistry.....	(2)
Chemistry 18, Research.....	(5)
Physics 10, Electric Machinery.....	(3)
Physics 6, Thermodynamics (fall term).....	(1)
Geology 2, Mineralogy.....	(3)

* Numerals in parentheses indicate the number of hours a week.

II. BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING**FRESHMAN YEAR.**

English 1, Composition.....	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
Select { German 1, Composition and Translation....	(3)
one { French 1, Composition and Translation.....	(3)
Chemistry 1, General Course.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR.

English 2, Composition and Literature.....	(3)
Mathematics 2, Analytics and Calculus.....	(3)
Select { German 2B, Translation and Literature.....	(3)
one { French 2, Composition and Translation.....	(3)
Spanish 1, Grammar and Translation.....	(3)
Physics 1, General Course.....	(3)
Physics 4, Electricity and Magnetism.....	(2)
Chemistry 3A, Qualitative Analysis.....	(1½)
Chemistry 4A, Quantitative Analysis.....	(1)

JUNIOR YEAR.

Mathematics 3, Surveying	(3)
Mathematics 3B, Descriptive Geometry.....	(2)
Mathematics 4, Calculus and Mechanics.....	(3)
Physics 10, Electric Machinery.....	(3)
Physics 13B, Electrical Design.....	(1)
Physics 15, Steam Machinery.....	(2)
Drawing 3, Mechanical, and Machine Design.....	(2)

SENIOR YEAR.

Physics 11, Alternating Currents.....	(4)
Physics 12A, Illuminating Engineering.....	(1)
Physics 12B, Electric Power Transmission.....	(1)
Physics 13B, Electrical Design.....	(1)
Physics 14, Electrical Engineering, Laboratory.....	(3)
Chemistry 7B, Electro-Chemistry.....	(2)
Mathematics 7A, Hydraulics.....	(3)

III. BACHELOR OF SCIENCE IN CIVIL ENGINEERING**FRESHMAN YEAR.**

English 1, Composition.....	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(3)
Select { French 1, Composition and Translation.....	(3)
one { German 1, Composition and Translation.....	(3)
Chemistry 1, General Course.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR.

English 2, Composition and Literature.....	(3)
Mathematics 2, Analytics and Calculus.....	(3)
Mathematics 3, Surveying.....	(3)
Mathematics 3A, Elementary Mechanics.....	(2)
Physics 1, General Course.....	(3)
Geology 1, General Course, fall term.....	(1½)
Drawing 2A, Mechanical and Topographical.....	(2)

JUNIOR YEAR.

Mathematics 3B, Descriptive Geometry.....	(2)
Mathematics 4, Calculus and Analytical Mechanics.....	(3)
Mathematics 7, Road and Railroad Surveying and Engineering	(3)
Mathematics 16, Road Construction, Drainage, and Location	(2)
Mathematics 11A, Retaining Walls and Dams.....	(1)
English 3A, Composition.....	(1½)
Geology 8A, Soil Surveying and Rocks for Road Construction	(1)
Drawing 2, Mechanical and Topographical.....	(2)

SENIOR YEAR.

Mathematics 7A, Hydraulics and Sanitary Engineering,	(3)
Mathematics 11B, Arches.....	(1)
Mathematics 8, Mechanics of Materials.....	(3)
Mathematics 10, Theory of Structures.....	(4)
Mathematics 13, Design of Structures.....	(3)
Physics 10, Electrical Machinery.....	(3)

IIIA. ROAD ENGINEERING.**FRESHMAN YEAR.**

English 1, Composition.....	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
Select { German 1, Translation and Composition.....	(3)
one { French 1, Translation and Composition.....	(3)
Chemistry 1, General Course.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR.

English 2, Composition and Literature.....	(3)
Mathematics 2, Analytics and Calculus.....	(3)
Mathematics 3, Surveying.....	(3)
Mathematics 3A, Mechanics.....	(2)
Physics 1, General Course.....	(3)
Drawing 2A, Mechanical and Topographical.....	(2)
Geology 1, General Course, fall term.....	(1½)

JUNIOR YEAR.

Mathematics 4, Calculus and Analytical Mechanics.....	(3)
Mathematics 7, Road and Railroad Surveying and Engineering	(3)
Mathematics 14, Brief Course in Strength of Materials and Stresses in Trusses.....	(2)
Mathematics 16, Road Construction, Drainage, and Location	(2)
Road Management, Building Model Roads.....	(1)
Geology 8A, Soil Surveying and Rocks for Road Construction	(1)
Drawing 2, Mechanical and Topographical.....	(2)
English 3A, Composition.....	(1½)

IV. BACHELOR OF SCIENCE IN MEDICINE**FRESHMAN YEAR.**

English 1, Composition.....	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
Chemistry 1, General Course.....	(3)
Botany 1, General Course.....	(3)

Select one	{ German 1, Composition and Translation.....	(3)
	{ French 1, Composition and Translation.....	(3)
	{ Latin 1, Grammar and Translation.....	(4)

SOPHOMORE YEAR.

English 2, Composition and Literature.....	(3)
Physics 1, General Course.....	(3)
Zoology 1, General Course.....	(3)
Chemistry 3, Qualitative Analysis.....	(2)
. Select { Drawing 1, Freehand and Mechanical.....	(2)
	one { History 1, American.....	(3)

JUNIOR YEAR.*

Organic Chemistry, fall term.....	(6)
Toxicology, spring term.....	(6)
Comparative Anatomy, fall term.....	(6)
Human Anatomy.....	(10)
Histology, fall term.....	(9)
Embryology, spring term.....	(6)
Pharmacy, spring term.....	(6)

SENIOR YEAR.*

Human Anatomy, fall term.....	(9)
Neuro-Anatomy, fall term.....	(6)
Bacteriology, fall term.....	(9)
Physiology	(7½)
Physiological Chemistry, fall term.....	(6)
Pathology, spring term.....	(9)
Pharmacology, spring term.....	(10)
Minor Surgery, spring term.....	(4)

V. BACHELOR OF SCIENCE IN SOIL INVESTIGATION

FRESHMAN YEAR.

English 1, Composition.....	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
German 1, Translation and Composition.....	(3)
Chemistry 1, General Course.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

* The Junior and Senior courses are given in the School of Medicine, where descriptions of courses may be found.

SOPHOMORE YEAR.

English 2, Composition and Literature.....	(3)
Mathematics 3, Surveying.....	(2)
Chemistry 3, Qualitative Analysis.....	(2)
Geology 1, General Course.....	(3)
Physics 1, General Course.....	(3)
Drawing 2, Mechanical and Topographical.....	(2)

JUNIOR YEAR.

Chemistry 4, Quantitative Analysis.....	(3)
Geology 2, Mineralogy.....	(3)
Botany 1, General Course.....	(3)
Chemistry 2, Technical.....	(3)
English 3A, Composition.....	(1½)
French 1, Composition and Translation.....	(3)

SENIOR YEAR.

Geology 6, Research.....	(3)
Geology 7, Advanced Physiography.....	(3)
Geology 8, Origin and Nature of Soils.....	(2)
Chemistry 8, Research in Quantitative Analysis.....	(5)
Soils of the United States.....	(1½)
Mapping	(2)

COURSES OF INSTRUCTION

Only those scientific and language courses which are specifically required in the School of Applied Science are repeated here. For complete description of other courses, see page 43.

DEPARTMENT OF CHEMISTRY

[For description of Chemical Laboratories, see p. 191.]

1. General Descriptive Chemistry: a study of the elements and their compounds, including an introduction to Organic Chemistry; lectures with laboratory work. Required of Freshmen. *Both terms, three hours.* Professor HERTY, Associate Professor HALL, and Mr. BRYAN.

Laboratory fee, \$1.25 a term.

2. Technical Chemistry: (a) Industrial and Agricultural Chemistry: glass-making, acids, alkalies, phosphates, fertilizers, foods, clothing, hygiene, etc. (b) Metallurgy: mining, treatment of ores, smelting, chlorination, fuel, building materials, etc. Required of Juniors in Courses I and V; prerequisite, Chemistry 1. *Both terms, three hours.* Professor HERTY.

3. Qualitative Analysis: laboratory work with lectures. May be taken with Chemistry 1. Required of Sophomores in Courses I, II, IV, and V. *Both terms, two hours.* Associate Professor WHEELER and Mr. HOKE.

Laboratory fee, \$5.00 a term.

- 3A. Qualitative Analysis. The behavior of the elements and their compounds is studied in the laboratory. Practice is given in the analysis of known and unknown mixtures. Laboratory work with lectures. Text: Venable and Wheeler's *Qualitative Chemical Analysis* and the professor's notes. *Fall term, three hours.* Associate Professor WHEELER and Mr. HOKE.

Laboratory fee, \$5.00.

4. Quantitative Analysis and Assaying: laboratory work, lectures, and stoichiometric exercises; a grounding in analytical methods. Required of Sophomores in Course I, and of Juniors in Course V; prerequisite, Chemistry 1 and 3. *Both terms, three hours.* Associate Professor BELL.
Laboratory fee, \$5.00 a term.
- 4A. Quantitative Analysis: a brief course in gravimetric methods, followed by a more extended course in volumetric methods. Laboratory notes. *Spring term, two hours.* Associate Professor BELL.
Laboratory fee, \$5.00.
5. Organic Chemistry. Required of Juniors in Course 1; prerequisite, Chemistry 1 and 3. *Both terms, three hours.* Associate Professor WHEELER.
Laboratory fee, \$4.00 a term.
- 5A. Organic Chemistry: laboratory work only. This course is designed to give further practice in dealing with organic substances. The student may choose the general line of work he desires to pursue. Required of Seniors in Course 1. *Both terms, two hours.* Associate Professor WHEELER.
Laboratory fee, \$6.00 a term.
6. The History of Chemistry. Required of Seniors in Course I; prerequisite, Chemistry 1, 3, 4, 5. *Spring term, two hours.* President VENABLE.
7. Elementary Physical Chemistry. Required of Juniors in Course I; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.* Associate Professor BELL.
Laboratory fee, \$2.00 a term.
- 7A. Physical Chemistry: lectures and text-books, with laboratory work. Senior elective in Course I; prerequisite, Chemistry 7. *Both terms, two hours.* Associate Professor BELL.
- 7B. Electro-Chemistry: theory and application of electricity to chemical processes. Senior elective in Course I; prerequisite, Chemistry 1, 3, and 4. *Both terms, two hours.* Associate Professor BELL.

16. Inorganic Chemistry: a detailed study of the reactions of the elements and their compounds; lectures and text-book. Required of Juniors in Course I; prerequisite, Chemistry 1, 3, and 4. *Spring term, three hours.* Professor HERTY.
17. Quantitative Analysis: laboratory work; extension of course 4 along technical lines. Required of Juniors in Course I; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.* Professor HERTY.
Laboratory fee, \$5.00 a term.
18. Research. Required of Seniors in Course I; prerequisite, Chemistry 1, 3, 4, 5, 7, and 17. *Both terms, five hours.* Professor HERTY, Associate Professors WHEELER, BELL, and HALL.
Laboratory fee, \$10.00 a term.

The Journal Club meets fortnightly. The current journals, American, English, German, and French, both the purely scientific and the technical, are reviewed by the students and instructors. Attendance is expected of students in Chemical Engineering.

DEPARTMENT OF ENGLISH

1. Types of Literature: the short story, the novel, the essay; the lyric, the epic, the ballad, and the drama. Practical rhetoric and theme writing during the second term. This course lays the foundation for the student's later studies in both literature and composition. Required of Freshmen. *Both terms, three hours.* Professor MIMS, Associate Professor BOOKER and Mr. SNEATH.
2. First Term: Rhetoric and Composition: preparation and criticism of daily and weekly themes. Second term: History of English Literature; reports on assigned readings. Required of Sophomores. *Both terms, three hours.* Professor ROYSTER, Associate Professor BOOKER and Mr. SNEATH.
- 3A. Composition: a practical course in expository writing designed to teach clearness and good construction; lectures and theses. Required of Juniors in Courses III, IIIA, V. *Fall term, three hours.* Professor GRAHAM.

DEPARTMENT OF GEOLOGY AND MINERALOGY

[For description of Geological Laboratories, see page 194.]

1. Elementary Geology: lectures with field work; laboratory work on the common minerals and rocks. Required of Sophomores in Course V, and of Juniors in Course I. *Both terms, three hours.* Professor COBB and Mr. VOGLER.

Laboratory fee, \$3.00 for the spring term.

2. Mineralogy: lectures with laboratory and field work; Crosby's *Tables* and Dana's *Text-book of Mineralogy*. Required of Juniors in Course V, and of Seniors in Course I. *Both terms, three hours.* Mr. FRY.

Laboratory fee, \$5.00 a term.

4. Economic Geology: ore deposits and economic minerals; lectures with laboratory and field work. Prerequisite, Geology 1 and Chemistry 1 and 3. *Both terms, three hours.* Mr. FRY.

6. Advanced Field Work and Special Research in Geology or Geography: problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Course V; prerequisite, two courses in Geology. *Both terms, three hours.* Professor COBB.

8. Origin and Nature of Soils: field work, laboratory and theses. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Course V. *Both terms, two hours.* Professor COBB.

Laboratory fee, \$2.00 a term.

- 8A. Soils and Stones for Road Making: field work, laboratory work. Required of Juniors in Courses III and IIIA; prerequisite, Geology 1. *Both terms, one hour.* Professor COBB.

Laboratory fee, \$1.00 a term.

11. Mineral and Ore Deposits: lectures supplemented by laboratory and field work. *Twenty-four lectures (spring term).* Professor PRATT.

12. **Advanced Work in Mineralogy.** *One hour.* Professor PRATT.

The Geological Seminary meets fortnightly for review and discussion of current geological literature, and for the presentation of original papers.

Course in Soil Investigation

1. **Agricultural Soils:** an elementary course covering the nature, origin, and classification of soils; lectures, reading, and field and laboratory work. Open to Juniors and Seniors. *Fall term, three hours.* Professor COBB and Dr. COFFEY.
2. **Soils of the United States:** an introductory study of the chief soil provinces, soil series, and soil areas of the United States, with special reference to the soils of North Carolina. Required of Seniors in Course V. *Spring term, two hours.* Professor COBB and Dr. COFFEY.
3. **Soil Mapping:** preparation of large scale soil maps of the Chapel Hill region. Required of Seniors in Course V. *Both terms, two hours.* Professor COBB and Dr. COFFEY.
4. **Soil Seminary:** study of soil literature with preparation of reports on selected subjects. Open to students engaged in soil work. *One evening each week during February and March.* Professor COBB and Dr. COFFEY.

DEPARTMENT OF GERMANIC LANGUAGES

- A. **Elementary Course:** grammar; written and oral exercises; translation; sight reading. This course may be counted for entrance only. *Both terms, three hours.* Professor TOY, Associate Professor VILES, and Mr. HOGUE.
1. **Translation, Sight Reading, Composition, Grammar:** required of Freshmen in Courses I and V; elective in Courses II, III, IIIA, IV. *Both terms, three hours.* Professor TOY and Associate Professor VILES.

- 2B. History of German Literature in the Nineteenth Century after 1832: rapid reading from representative authors, with parallel lectures. Sophomore elective in Course II; prerequisite, German I. *Both terms, three hours.* Associate Professor VILES.

DEPARTMENT OF MATHEMATICS

1. Algebra, from Quadratics through Theory of Equations (Fine's *College Algebra*); Plane and Spherical Trigonometry and Logarithms. Required of Freshmen. *Both terms, four hours.* Professor HENDERSON, Associate Professor HICKERSON, and Messrs. EAGLES and LASLEY.
2. Co-ordinate Geometry (Fine and Thompson); Elementary Course in Differential and Integral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomores. *Both terms, three hours.* Professors CAIN and HENDERSON.
3. (a) Surveying (Raymond), and (b) Higher Surveying. Required of Sophomores in Courses III, IIIA, and V, and of Juniors in Course II. *Both terms, three hours.* Professor STACY and Mr. WOOD.
- 3A. Elementary Mechanics (Loney). Required of Sophomores in Courses III and IIIA. *Both terms, two hours.* Professor STACY.
- 3B. Graphics: Descriptive Geometry (Church); Shades, Shadows, and Perspective (Mitchell). Required of Juniors in Courses II and III. *Both terms, three hours.* Mr. WOOD.
- 3D. Theory of Equations. Prerequisite, Mathematics 1. *Fall term, two hours.* Professor HENDERSON.
- 3E. Differential Equations: elementary course. Prerequisite, fall term of Mathematics 4. *Spring term, two hours.* Professor HENDERSON.

4. Calculus, Analytic Mechanics. Required of Juniors in Courses II, III, IIIA; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.
5. Theory of Equations (Burnside and Panton). Prerequisite, Mathematics 2. *Both terms, three hours.* Professor HENDERSON.
6. Differential Equations (Murray). Prerequisite, Mathematics 4. *Both terms, three hours.* Professor HENDERSON.
7. Railroad Surveying and Railroad Engineering. Required of Juniors in Courses III and IIIA; prerequisite, Mathematics 3. *Both terms, three hours.* Professor STACY.
- 7A. Hydraulics and Sanitary Engineering. Required of Seniors in Course III; prerequisite, Mathematics 4. *Both terms, three hours.* Professor STACY.
8. Mechanics of Materials. Required of Seniors in Course III; prerequisite, Mathematics 4. *Both terms, three hours.* Professor CAIN.
10. Theory of Structures. Required of Seniors in Course III; prerequisite, Mathematics 4. *Both terms, four hours.* Associate Professor HICKERSON.
- 11A. Retaining Walls and Dams. Required of Juniors in Course III; prerequisite, Mathematics 2. *Both terms, one hour.* Professor CAIN.
- 11B. Arches. Senior elective; prerequisite, Mathematics 4. *Both terms, one hour.* Professor CAIN.
13. Design of Structures. Required of Seniors in Course III; may be taken in connection with Mathematics 8 and 10. *Both terms, three hours.* Associate Professor HICKERSON.
14. Brief Course in Strength of Materials and Stresses and Trusses. Required of Juniors in Course IIIA; prerequisite, Mathematics 4. *Both terms, two hours.* Professor STACY.

16. Road Construction and Drainage; Road Location. Required of Juniors in Courses III and IIIA. *Both terms, two hours.* Associate Professor HICKERSON.

Drawing

1. Freehand and Mechanical Drawing: (a) Freehand drawing: sketching from dictation, sketching of geometrical figures, sketching from flat copy from models; application of rules of perspective and light and shade. (b) Lettering: freehand and mechanical lettering. (c) Mechanical drafting: the use of instruments; geometrical drafting; orthographic projection; elementary working drawings. Text-books: Anthony's *Mechanical Drawing*, Reinhardt's *Free Lettering*. Required of Freshmen. *Both terms, two hours.* Mr. WOOD.
2. Mechanical and Topographical Drawing: (a) Mechanism and valve-gears, including the design of cams, gear-teeth, slide valves, etc.; dimensioned working drawings of machines from measurements. (b) Topography: topographical symbols, map drawing in pen and ink and in colors. Text-books: Spooner's *Machine Drawing and Design* and Daniels' *Topographical Drawing*. Required of Sophomores in Course V and of Juniors in Courses III and IIIA. *Both terms, two hours.* Mr. WOOD.
- 2A. Mechanical Drawing: working drawings; tracings; blue-prints; structural work; teaching systems of dimensioning, conventional representations. Topographical drawing: conventional signs and plotting. Text-books: Anthony's *Machine Drawing*, Daniels' *Topographical Drawing*. Required of Sophomores in Courses I, III, and IIIA. *Both terms, two hours.* Mr. WOOD.
3. Mechanical Drawing: machine drafting, work drawings; tracing and blue-prints of machine details; assembly drawing; machine design; complete shop and erection drawing with bill of material, in accordance with mod-

ern drafting room systems and standards. Required of Juniors in Course II; prerequisite, Drawing 1 and 2. *Both terms, two hours.* Mr. WOOD.

DEPARTMENT OF PHYSICS

[For description of Physical Laboratories, see page 190.]

1. General Physics: lectures, with text-book; problems; laboratory work. Required of Sophomores; prerequisite, Mathematics 1. *Both terms, three hours.* Professor PATTERSON.
Laboratory fee, \$1.25 a term.
4. Study of Electricity and Magnetism, with Laboratory Work: Franklin and MacNutt's *Electricity and Magnetism*. Required of Sophomores in Course II. *Both terms, two hours.* Professor PATTERSON.
Laboratory fee, \$2.00 a term.
6. Advanced Heat and Thermodynamics. This study is based on Edser's *Heat for Advanced Students*, Ewing's *The Steam Engine and Other Heat Engines*, and Peabody's *Thermodynamics of the Steam Engine*. Required of Juniors in Course II, and of Seniors in Course I; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.
10. The Elements of Electrical Engineering: an introductory course in the theory and practical operation of direct and alternating current machines and apparatus. Franklin and Esty's *Elements of Electrical Engineering*, Vols. I and II. Laboratory work one afternoon a week. Required of Juniors in Course II, and of Seniors in Courses I and III; prerequisite, a grade of 80 on spring term of Physics 1. *Both terms, three hours.* Associate Professor DAGGETT.
Laboratory fee, \$2.00 a term.
11. Alternating Currents and Alternating Current Machinery: lectures and problem work; testing and study of alternating current machines in the laboratory. Reference book: Steinmetz's *Alternating Current Phenomena*. Required of Seniors in Course II; prerequi-

site, Physics 10 and Mathematics 4. *Both terms, four hours.* Associate Professor DAGGETT.

Laboratory fee, \$2.50 a term.

12A. Illuminating Engineering: theoretical and practical study of modern light sources, both gas and electric. Wickendon's *Illumination and Photometry*. Required of Seniors in Course II; prerequisite, Physics 10. *Fall term, two hours.* Associate Professor DAGGETT.

12B. Electric Power Transmission: a study of the theory, construction, and operation of modern low and high tension circuits for the transmission of power. Required of Seniors in Course II; prerequisite, fall term of Physics 11. *Spring term, two hours.* Associate Professor DAGGETT.

13B. Electric Design: fundamental principles of the design of electrical machinery; lectures, calculations, preparation of drawings and specifications. Reference books: Hawkins and Wallis' *The Dynamo*, Hobart's *Dynamo Design*, Hobart and Ellis' *High Speed Dynamo Electric Machinery*. Required of Seniors in Course II; prerequisite, Physics 11 and 14, which may be taken in the same year with 13B. *Spring term, two hours.* Associate Professor DAGGETT.

14. Electrical Engineering Laboratory: calibration of instruments; testing of electric lamps and storage batteries; dielectric tests; dynamo and motor characteristics; regulation; efficiency; heating. Swenson and Frankenfield's *Testing of Electro-Magnetic Machinery*. Required of Seniors in Course II; prerequisite, Physics 10. *Both terms, three hours.* Associate Professor DAGGETT.

Laboratory fee, \$5.00 a term.

15. Steam Engineering: boilers, furnaces, steam pumps and other boiler room accessories; steam engines, valves and valve gears; steam turbines; gas and oil engines, gas producers. Lectures, problems and laboratory work in the University Power Station. Allen and Bursley's *Heat Engines*. Required of Juniors in

Course II; prerequisite, Drawing 1 and Physics 1.
Both terms, two hours. Associate Professor DAGGETT.
Laboratory fee, \$2.50 a term.

DEPARTMENT OF ROMANCE LANGUAGES

French

- A. Elementary Course: grammar; pronunciation taught by the phonetic method; oral and written exercises; translation and reading at sight. This course may be counted for entrance only. *Both terms, three hours.* Associate Professor TOWLES and Mr. WARE.
- 1. Continuation of Course A: grammar; composition; reading of modern French literature. Freshmen elective in Courses II, III, IIIA, and IV. *Both terms, three hours.* Associate Professor TOWLES and Mr. WARE.
- 2. Advanced Course: studies in reading and writing French, and in pronunciation. French phonetics. Sophomore elective in Course II; prerequisite, French 1. *Both terms, three hours.* Professor DEY.

Spanish

- 1. Elementary Course: grammar; pronunciation; oral and written exercises; translation and reading at sight. Sophomore elective in Course II. *Both terms, three hours.* Professor DEY.

THE GRADUATE SCHOOL

COMMITTEE

FRANCIS PRESTON VENABLE, Ph. D., LL. D., PRESIDENT.
CHARLES LEE RAPER, Ph. D., DEAN.
EDWARD KIDDER GRAHAM, A. M.
GEORGE HOWE, Ph. D.

FACULTY

WALTER DALLAM TOY, M. A., *Professor of the Germanic Languages and Literatures.*
WILLIAM CAIN, C. E., *Professor of Mathematics.*
HENRY HORACE WILLIAMS, A. M., B. D., *Professor of Philosophy.*
HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*
COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*
MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy.*
GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*
CHARLES HOLMES HERTY, Ph. D., *Professor of General and Industrial Chemistry.*
CHARLES LEE RAPER, Ph. D., *Professor of Economics.*
WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*
ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*
JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *Alumni Professor of History.*
ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*
HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of History.*
EDWIN MIMS, Ph. D., *Professor of English.*
WILLIAM MORTON DEY, Ph. D., *Professor of the Romance Languages and Literatures.*
MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*
JAMES FINCH ROYSTER, Ph. D., *Professor of English.*
CHARLES WESLEY BAIN, A. M., *Professor of Greek.*

- HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*
- ALVIN SAWYER WHEELER, Ph. D., *Associate Professor of Organic Chemistry.*
- THOMAS JAMES WILSON, JR., Ph. D., *Associate Professor of Latin.*
- WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*
- OLIVER TOWLES, A. B., *Associate Professor of the Romance Languages.*
- THOMAS FELIX HICKERSON, A. M., *Associate Professor of Civil Engineering.*
- PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*
- JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*
- ROBERT ANDERSON HALL, Ph. D., *Associate Professor of General Chemistry.*
- GEORGE BURRIDGE VILES, Ph. D., *Associate Professor of the Germanic Languages and Literatures.*
- WILLIAM HENRY FRY, A. B., *Instructor in Geology.*
- JOHN ELLIOTT WOOD, A. B., *Instructor in Drawing.*

CANDIDATES FOR GRADUATE WORK

Graduates of the University of North Carolina and of other universities and colleges of good standing are, upon application to the President or Dean, ordinarily admitted to advanced courses of instruction free of charge for tuition. There is, however, a registration fee of twelve dollars and a half for each term. An applicant for admission, unless a graduate of the University of North Carolina, is required to present his diploma and a certificate of scholarship and character. If in any department the preliminary training of candidates has not been sufficient to qualify them for strictly graduate work, they will be required to take such undergraduate courses as may be prescribed by the head of the department; but these courses will not be counted for hours in work leading to a graduate degree.

Students who are not graduates may, if they prove themselves qualified, take graduate courses; but no graduate degree will be given to a student who does not already hold a Bachelor's degree from some institution of approved standing.

All courses must be approved by the President or Dean.

DEGREES

The University offers to graduate students advanced work leading to the degrees of Master of Arts (A. M.), Master of Science (S. M.), and Doctor of Philosophy (Ph. D.).

MASTER OF ARTS

Candidates for the degree of Master of Arts must complete satisfactorily one year of study consisting of at least fifteen hours a week of recitations or lectures, eight hours of which must be taken from courses in the Graduate Department, the remaining seven from courses in the graduate department or from undergraduate courses open only to Juniors and Seniors. The candidate shall select one major subject and two minor subjects. The course as a whole must have unity and must be pursued with definite aim.

A thesis based on the major subject of study and showing capacity for original research must be submitted on or before May 1 of the given year, and must be filed in typewritten form on or before May 15.

MASTER OF SCIENCE

The degree of Master of Science is conferred in the School of Applied Science under conditions similar to those stated above for the degree of Master of Arts.

DOCTOR OF PHILOSOPHY

A candidate for the degree of Doctor of Philosophy is required to pursue, in residence at the University, a prescribed course of advanced study and research in one major subject and two allied minor subjects. In general a term of three years is required, but the degree may be secured in two years in the case of exceptional preliminary training in the major subject.

These requirements of residence and study are, however, entirely secondary. The degree is conferred not simply for faithful study in a determinate field of work for a prescribed period, but because of a high attainment in a special branch of learning, which the candidate must have manifested not only in examination, but by a thesis which gives evidence of independent research and contributes to knowledge. The candidate should choose his major subject in a department in which he has already pursued, for a considerable period, a systematic course of study. To receive this degree, a knowledge of French and German will be found indispensable in most instances. The thesis must be accepted before the candidate may be admitted to examination. The examinations are both written and oral. They demand a minute knowledge of a special field of work as well as a general acquaintance with the department of learning in which the candidate offers himself for the degree.

COURSES OF INSTRUCTION

DEPARTMENT OF BOTANY

[For description of Biological Laboratories, see page 193.]

2. **Physiology:** a general course in plant physiology; lectures with laboratory and field experiments. Open to Juniors and Seniors. *Both terms, three hours.* Professor COKER.
3. **Special Morphology of the Algæ and Fungi,** with attention to the culture of lower fungi, and the identification of mushrooms; lectures with laboratory and field work. Open to Juniors and Seniors. *Both terms, three hours.* Professor COKER.
4. **Plant Morphology:** advanced work in the embryology and anatomy of plants. The student is required to collect and prepare material for the microscopic study of special problems. Theses. *Both terms, five hours or more.* Professor COKER.

DEPARTMENT OF CHEMISTRY

[For description of Chemical Laboratories, see page 191.]

11. **Research in Inorganic, Analytical, and Industrial Chemistry.** This course (with 12 and 13) is intended only for applicants for the degree of Doctor of Philosophy or properly equipped students who desire special training in advanced chemical research. It requires, in addition to the laboratory work, daily conference with the professor and continual reference to the literature touching the matter under investigation. The work is usually assigned by the professor, but by special permission the student may elect to work upon problems to which he wishes to give particular attention. *Both terms, six hours.* Professor HERTY and Associate Professor HALL.

Laboratory fee, \$12.50 a term.

12. Research in Organic Chemistry. The statements made in regard to course 11 apply also to this course. *Both terms, six hours.* Associate Professor WHEELER.
Laboratory fee, \$12.50 a term.
13. Research in Physical Chemistry. *Both terms, six hours.* Associate Professor BELL.
Laboratory fee, \$12.50 a term.
14. Advanced Inorganic Chemistry The elements are studied with the idea of showing the fundamental laws of Chemistry and the deep-seated relations involved in and leading up to the Periodic System. Attention is also given to those portions of Inorganic Chemistry not usually dwelt upon in the regular courses. The applications of Physico-chemical laws and generalizations are emphasized throughout the course. *Both terms, two hours.* Professor HERTY.
15. Advanced Organic Chemistry: Seminar Course: readings and discussions; a study of class reactions with reference to their application to organic research is taken up, and special attention is given to the most important modern investigation. *Both terms, two hours.* Associate Professor WHEELER.

The *Journal Club* meets fortnightly. The current journals, American, English, German, and French, purely scientific and technical, are reviewed by the students and instructors. Attendance upon the meetings of the Club is expected of all students taking the above courses.

DEPARTMENT OF ECONOMICS

2. Public Finance: a general study of the principles which are involved in the revenues and expenditures of the State, and of the relation of the State to the industries of its citizens; a special study of taxation and the tariff; lectures, readings, and reports; Adams' *The Science of Finance*. Open to Seniors. *Both terms, two hours.* Professor RAPER.
Given in alternate years; to be given in 1912-1913.
3. Economic Institutions and Thought in England and the United States; a general study, largely from the historical point of view, of the economic institutions and

the systems of economic thought in England and the United States; a special study of socialism; lectures, readings, and reports; Cheyney's *Industrial and Social History of England*, Brooks' *The Social Unrest*, Spargo's *Socialism*, and the *Communist Manifesto* (Marx and Engels). Open to Seniors. *Both terms, two hours.* Professor RAPER.

DEPARTMENT OF EDUCATION

10. Child Study: the development of the child from birth to adolescence and the significance of child study for education; lectures, readings, text. Open also to Seniors; prerequisite, Education 1 and 2, or 3, or 7, or an equivalent. *Fall term, two hours.* Professor CHASE.
11. Adolescence: a continuation of the preceding course, dealing with the adolescent changes and their significance; lectures and text. Open also to Seniors; prerequisite, Education 10. *Spring term, two hours.* Professor CHASE.
12. The Philosophy of Education: a discussion of the underlying principles shaping educational systems, past and present. Seminar course; readings, theses, discussions. *Both terms, two hours.* Professor CHASE.
13. American Education: a study of the development of the school systems in the United States, with a comparative study of the principal European systems; research and lectures. *Both terms, two hours.* Professors NOBLE and CHASE.

DEPARTMENT OF ENGLISH.

Candidates for the degree of Doctor of Philosophy who elect advanced work in the English language as their major subject will be expected to take one or more courses in other Germanic languages. All graduate work in the English languages presupposes English 6, or its equivalent, and a reading knowledge of German; but, in exceptional cases, English 6 and German A may be taken along with the English graduate courses.

6. **Introductory Course in Old and Middle English:** In the first term a careful study is made of Old English grammar and syntax; a large amount of easy Old English prose is read. Text: Bright's *Anglo-Saxon Reader*. In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. Texts: Greenough's *Selections from Chaucer*; Emerson's *Middle English Reader*. The primary aim of the whole course is to acquaint the student with the main facts of the beginning and development of the English language. The language of the older periods is considered in its relations to present day English; many points of confusion in modern English, unexplained by the rules of logical grammar, are made clear. Open to Juniors and Seniors. *Both terms, three hours.* Professor ROYSTER.
The attention of students electing this course is called to Course 13 in the Latin Department.
7. **Advanced Course in Old English and Middle English:** the work of the first term continues the study of Old English grammar, particularly in its relations to that of the other Indo-European languages, and takes up the reading of Old English poetry. Texts: Wyatt's *Beowulf*; Blackburn's *Exodus and Daniel*. A study of Chaucer's minor poems will be the basis of the work of the second term, 1912; prerequisite, English 6, or its equivalent. Open to Seniors. *Both terms, two hours.* Professor ROYSTER.
8. **History of the English Language:** This course supplements English 6. It will trace the growth of the English language from its beginnings in England until today. Junior and Senior elective. *Both terms, three hours.* Professor ROYSTER.
11. **Seventeenth Century Literature:** in the main, a comprehensive study of the writings of John Milton, considered in relation to the literature and the history of the Civil War. Open to Seniors. *Both terms, two hours.* Professor MIMS.

This course alternates with course 12; to be omitted in 1912-1913.

12. Eighteenth Century Literature: a study of the development of English prose, of the poetry of the Classical School, and of the beginnings of the Romantic Movement. Open to Seniors. *Both terms, two hours.* Professor MIMS.

This course alternates with course 11.

DEPARTMENT OF GEOLOGY

[For description of Geological Laboratories, see page 194.]

5. Petrography: lectures, laboratory work, and theses. Open to Juniors and Seniors. *Both terms, three hours.* Mr. FRY.

Laboratory fee, \$2.00 a term.

6. Advanced Field Work and Special Research in Geology and Geography: problems assigned individually and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Open to Seniors. *Both terms, three hours.* Professor COBB.
9. Research Course in Historical Geology. *Both terms, three hours.* Professor COBB.

DEPARTMENT OF GERMANIC LANGUAGES

3. History of German Literature: lectures with parallel reading and written reports. Prerequisite, German 2A or 2B. Open to Juniors and Seniors. *Both terms, two hours.* Professor TOY.
4. Middle High German: Paul's *Mittelhochdeutsche Grammatik*; Bachmann's *Mittelhochdeutsches Lesebuch*; translation into New High German. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor VILES.

This course alternates with course 5.

5. Old High German: Braune's *Althochdeutsche Grammatik*; Braune's *Althochdeutsches Lesebuch*. Open to Juniors and Seniors. *Both terms, two hours.* Associate Professor VILES.

This course alternates with course 4; to be omitted in 1912-1913.

6. Gothic: Braune's *Gotische Grammatik*; selected parts of Paul's *Grundriss der Germanischen Philologie*. This course is intended to lay the foundation for the philological study of the German dialects. Open to Juniors and Seniors. *Both terms, three hours.* Professor TOY.
- 7A. Goethe: Goetz von Berlichingen, Tasso, Dichtung und Wahrheit, Hermann and Dorothea. In connection with the interpretation of the texts, the life of Goethe will be studied. Selected chapters of Scherer's *History of German Literature*, Francke's *History of German Literature*, and Bielschowsky's *Goethe, Sein Leben und Seine Werke* will be read. Open to Juniors and Seniors; prerequisite, German 2A or 2B or 3. *Both terms, two hours.* Associate Professor VILES.

This course may be elected only after consultation with the instructor.

- 7B. Goethe's Faust, Parts I and II. Open to Juniors and Seniors; prerequisite, German 2A or 2B or 3. *Both terms, two hours.* Professor TOY.

This course is to be omitted in 1912-1913. It may be elected only after consultation with the instructor.

DEPARTMENT OF GREEK

7. Greek Drama: Euripides, Iphigenia Among the Taurians; Sophocles, Oedipus, Tyrannus; Aeschylus, Agamemnon; Aristophanes, Clouds; Aristotle, Poetics. Open to Juniors and Seniors. *Both terms, three hours.* BAIN.
8. Prose Composition: advanced course. *Fall term, two hours.* Professor BAIN.
11. Greek History: the selections from Greek historians in Parts I and II of Baumeister's *Quellenbuch zur Alten Geschichte*. *Both terms, two hours.* Professor BAIN.
12. Bucolic Poetry: the Idylls of Theocritus, Bion, and Moschus. *Both terms, two hours.* Associate Professor BERNARD.

17. Greek Epigraphy and Palæography: a brief introduction to the study of Greek inscriptions and manuscripts; lectures and reports. *Fall term, two hours.* Professor BAIN.

The attention of students electing this course is called to course 14 in the Latin Department.

18. Critical Study of Special Authors: with lectures on Classical Greek Syntax, metres, dialects, oral and written translation into Greek, the history of Athens from the battle of the Arginusæ to the Restoration of the Democracy. *Both terms, three hours.* Professor BAIN.

DEPARTMENT OF HISTORY

10. Civil War and Reconstruction: a detailed study of the constitutional, political, and economic phases of the period of the Civil War and Reconstruction; lectures, readings, and reports. Open to Seniors. *Both terms, two hours.* Professor HAMILTON.
13. The American Constitution: research in the history of the Constitution of the United States. *Both terms, two hours.* Professor WAGSTAFF.
14. American Politics: lectures and research in the history of political parties of the United States. *Both terms, two hours.* Professor HAMILTON.

DEPARTMENT OF LATIN

5. Pliny: Selected Letters; Juvenal, Satires; Martial, selected epigrams; reading with special reference to the private life of the Romans at the close of the first century A.D. Open to Juniors and Seniors. *Both terms, two hours.* Professor HOWE.

This course alternates with course 9.

9. Roman Elegiac Poets: rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives of the elegists; the history of Greek and Roman elegy. Open to Juniors and Seniors. *Both terms, two hours.* Professor HOWE.

This course alternates with course 5; to be omitted in 1912-1913.

11. The Study of a Particular Author or Period in Roman Literature: practice in rapid reading, with translation of the more difficult passages only. *Both terms, two hours.* Professor HOWE.
12. Lectures on Comparative Syntax of Greek and Latin: principles illustrated from Homer and Terence. *Both terms, two hours.* Associate Professor WILSON.
14. Latin Epigraphy and Palæography: a brief introduction to the study of Latin inscriptions and manuscripts; lectures and reports. *Fall term, two hours.* Professor HOWE.

The attention of students electing this course is called to course 17 in the Department of Greek.

DEPARTMENT OF MATHEMATICS

- 3C. Stereotomy: a course in the application of descriptive geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers and culverts; a study of warped surfaces and drawings for the helicoidal arch. Open to Seniors; prerequisite, Mathematics 3B. *Spring term, two hours.* Mr. WOOD.
4. Calculus; Analytic Mechanics. Open to Juniors and Seniors; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.
5. Theory of Equations (Burnside and Panton). Open to Juniors and Seniors. *Both terms, three hours.* Professor HENDERSON.
6. Differential Equations (Murray). Open to Seniors. *Both terms, three hours.* Professor HENDERSON.
7. Road and Railroad Surveying and Engineering. Open to Seniors. *Both terms, three hours.* Professor STACY.
- 7A. Hydraulics and Sanitary Engineering. Open to Seniors. *Both terms, three hours.* Professor STACY.
8. Mechanics of Materials. Prerequisite, Mathematics 4. Open to Seniors. *Both terms, three hours.* Professor CAIN.

10. Theory of Structures. Prerequisite, Mathematics 4. Open to Seniors. *Both terms, four hours.* Associate Professor HICKERSON.
- 11A. Retaining Walls and Dams. Prerequisite, Mathematics 4. Open to Seniors. *Both terms, one hour.* Professor CAIN.
- 11B. Arches. Prerequisite, Mathematics 4. *Both terms, one hour.* Professor CAIN.
13. Design of Structures. May be taken in connection with Mathematics 8 and 10. *Both terms, three hours.* Associate Professor HICKERSON.
15. Advanced Differential and Integral Calculus: lectures. *Both terms, two hours.* Professor CAIN.

DEPARTMENT OF PHILOSOPHY

5. Epistemology: a study of the Critical Philosophy; lectures, theses. First term: Prolegomena and Practical Reason and the works that prepared the way for Kant. Second term: *Kritik der reinen Vernunft*. *Both terms, three hours.* Professor WILLIAMS.
6. A Companion Course to Philosophy 4: The aim of the course is to sketch the forces masterful in modern life. Open to Juniors and Seniors. *Both terms, three hours.* Professor WILLIAMS.

DEPARTMENT OF PHYSICS

2. Modern Electrical Theory: the electron theory, electrolysis, conduction of electricity through gases, electric nature of matter, radioactivity. Prerequisite, Physics 1. Open to Juniors and Seniors. *Both terms, two hours.* Professor PATTERSON.
6. Advanced Heat and Thermodynamics: this study is based on Edser's *Heat for Advanced Students*, Ewing's *The Steam Engine and Other Heat Engines*, and Peabody's *Thermodynamics of the Steam Engine*. Prerequisite, Physics 1 and Mathematics 2. Open to Jun-

iors and Seniors. *Both terms, two hours.* Professor PATTERSON.

11. Alternating Currents and Alternating Current Machinery: lectures and problem work; testing and study of alternating current machines in the laboratory. Reference book: Steinmetz's *Alternating Current Phenomena*. Prerequisite, Physics 10 and Mathematics 4. Open to Juniors and Seniors. *Both terms, four hours.* Associate Professor DAGGETT.

Laboratory fee, \$2.50 a term.

- 12B. Electric Power Transmission: a study of the theory, construction, and operation of modern low and high tension circuits for the transmission of power. Prerequisite, fall term of Physics 11. Open to Seniors. *Spring term, two hours.* Associate Professor DAGGETT.

- 13B. Electric Design: fundamental principles of the design of electrical machinery; lectures, calculations, prepreparation of drawings and specifications. Reference books: Hawkins and Wallis' *The Dynamo*, Hobart's *Dynamo Design*, Hobart and Ellis' *High-Speed Dynamo Electric Machinery*. Prerequisites, Physics 11 and 14, which may be taken in the same year with 13B. Open to Seniors. *Spring term, two hours.* Associate Professor DAGGETT.

14. Electrical Engineering Laboratory: calibration of instruments, testing of electric lamps and storage batteries; dielectric tests; dynamo and motor characteristics; regulation; efficiency; heating. Swenson and Frankenfield's *Testing of Electro-Magnetic Machinery*. Prerequisite, Physics 10. Open to Seniors. *Both terms, three hours.* Associate Professor DAGGETT.

Laboratory fee, \$5.00 a term.

DEPARTMENT OF ROMANCE LANGUAGES

3. French Literature: a general outline of its various periods; lectures, reading, reports. Prerequisite, French 2. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor TOWLES.

- 4A. French Literature in the Seventeenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor TOWLES.
This course alternates with course 4B.
- 4B. French Literature in the Eighteenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Professor DEY.
This course alternates with course 4A; to be omitted in 1912-1913.
5. French Literature in the Nineteenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Professor DEY.
6. Old French: reading of the oldest texts: La Chanson de Roland; Aucassin et Nicolette; Chrétien de Troyes; lectures on French Phonology and Morphology. Prerequisite, French 2, a knowledge of Latin equivalent to courses 1 and 2 of the Latin Department, and a reading knowledge of German. *Both terms, two hours.* Associate Professor TOWLES.
7. Provençal: a study of the ancient language and literature of Provence. Prerequisite, course 6. *Both terms, two hours.* Professor DEY.

DEPARTMENT OF ZOOLOGY

[For description of Biological Laboratories, see page 193.]

2. Comparative Anatomy and Embryology of the Vertebrates: study of types of fishes, amphibia, reptiles, birds, mammals; development of the characteristic vertebrate organs in the frog and chick; fundamentals of microscopic technique; laboratory work with occasional lectures. Open to Juniors and Seniors. *Both terms, three hours.* Professor WILSON and Mr. TURLINGTON.
3. Comparative Anatomy and Embryology of the Invertebrates: dissection and microscopic study of the types of the chief orders, with some consideration of their embryology; laboratory work with occasional lectures. Open to Juniors and Seniors. *Both terms, three hours.* Professor WILSON.

4. Animal Morphology: detailed study of problems in microscopic anatomy and embryology, chiefly comparative, in part experimental; laboratory work with use of classical text-books and original memoirs; theses. *Both terms, five hours or more.* Professor WILSON.

PART THREE

**PECUNIARY AID AND EXPENSES
MEDALS AND PRIZES
REGULATIONS**

PECUNIARY AID AND EXPENSES

FELLOWSHIPS AND SCHOLARSHIPS

THE TOCH FELLOWSHIP IN CHEMISTRY. (Established in 1905 by Mr. Maximilian Toch.) The holder is expected to devote himself to research in technical chemistry. This fellowship yields \$200 annually.

THE LEDOUX FELLOWSHIP IN CHEMISTRY. (Established in 1911 by Dr. Albert R. LeDoux.) The holder is expected to devote himself to research in chemistry. This fellowship is endowed and yields \$300 annually.

A FELLOWSHIP IN CHEMISTRY, established in 1911, is offered to graduate students for research in chemistry. This fellowship yields \$200 annually.

THE LIBRARY FELLOWSHIPS, two in number, established in 1907, yield each \$150 annually. The holders are expected to assist in the Library.

THREE TEACHING FELLOWSHIPS, established in 1907, yield each \$200 annually. The holders are expected to assist in the work of instruction in the departments to which the fellowships are assigned.

THE CAMERON SCHOLARSHIPS. (Established in 1892.) The heirs of Paul Carrington Cameron founded, in his memory, ten scholarships of the value of sixty dollars each.

THE DIALECTIC AND PHILANTHROPIC LITERARY SOCIETIES' SCHOLARSHIPS. (Established in 1893.) The Dialectic and Philanthropic Literary Societies of the University founded two scholarships of the value of sixty dollars each, recipients of which shall give assistance in the Library.

THE MOORE SCHOLARSHIPS. (Established in 1881.) Bartholomew Figures Moore, of Raleigh, bequeathed five thousand dollars, the interest of which shall be devoted to paying the tuition of students.

THE MARY ANN SMITH SCHOLARSHIPS. (Established in 1891.) Miss Mary Ann Smith bequeathed thirty-seven thou-

sand dollars for the foundation of scholarships, the number of scholarships to be determined by the amount of the income.

THE MARY RUFFIN SMITH SCHOLARSHIPS. (Established in 1885.) Miss Mary Ruffin Smith bequeathed to the University, in memory of her brother, Dr. Francis Jones Smith, a valuable tract of land in Chatham county of fourteen hundred and sixty acres, known as Jones's Grove. The will provides that rents of the land, or the interest on the purchase money, if sold, shall be used to pay the tuition of such poor students as the Faculty shall appoint.

THE SPEIGHT SCHOLARSHIPS. (Established in 1892.) The late Mrs. Mary Shepard Speight bequeathed ten thousand dollars to the University. The income shall be used to pay the tuition of needy students; but if tuition is ever made free, the income shall be used toward paying the salaries of the professors.

THE WOOD SCHOLARSHIP. (Established in 1892.) Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her late husband, Dr. Thomas Fanning Wood, a scholarship of the value of sixty dollars.

THE WEIL SCHOLARSHIP. (Established in 1898.) A fund established by Mr. Henry Weil, of Goldsboro, furnishes one scholarship of the value of sixty dollars.

THE ARMFIELD SCHOLARSHIPS. (Established in 1901 and 1904.) These scholarships are founded by the generosity of Mr. Eugene M. Armfield, of the class of 1888, High Point, N. C.,

THE ALUMNI SCHOLARSHIPS. These scholarships have been established by the gifts of Alumni. A scholarship will be awarded for each one thousand dollars given.

THE KENNETH MURCHISON SCHOLARSHIPS. (Established in 1904.) These scholarships have been founded by Mrs. Shirley Carter, of Baltimore, Md., and Mrs. James Sprunt, of Wilmington, N. C., in memory of their father. They are awarded by the founders.

THE BABBITT SCHOLARSHIP. (Established in 1910.) This scholarship was founded by the Babbitt Corporation. It is awarded annually by Professor Herty to that member of the incoming Senior Class who has made the best record in the Department of Chemistry. The holder of this scholarship is required to investigate during the spring term some subject connected with the chemistry of the oleoresins. The scholarship yields annually \$250.

None of these scholarships is open to students in the professional Schools of Law, Medicine, and Pharmacy.

All applications for scholarships must be filed in the President's office on or before August 15, and must be in the regular form prescribed by the University. Blank forms are supplied on application to the Registrar.

FREE TUITION

By an act of the Legislature in 1887, free tuition is given to candidates for the ministry, to the sons of ministers, to young men under bodily infirmity, to teachers, and to young men preparing to teach. This enables the University to aid effectively the public school teachers of the State.

LOAN FUNDS

THE DEEMS FUND. (Established in 1879.) A fund of six hundred dollars was established by Rev. Charles Force Deems, D. D., late pastor of the Church of the Strangers, New York City, formerly a professor in the University, in memory of his son, Lieutenant Theodore Disosway Deems. In 1881 the gift was greatly enlarged through the munificence of Mr. William H. Vanderbilt, by a gift of ten thousand dollars, "as an addition to the Deems fund, to be loaned to indigent students of the University."

THE MARTIN FUND. This fund has been established by the bequest of Mr. Thomas D. Martin, of Raleigh. Only the interest of this fund can be used for loans. It became available during the session of 1907-1908.

All applications for loans must be filed in the President's office on or before August 15.

Applications for loans will not be considered unless accompanied by testimony from responsible persons as to poverty and merit. The funds are limited in amount and are loaned only on the security of two approved signatures and at the legal rate of interest.

EXPENSES

Every effort is made to reduce to the lowest point the necessary expenses of an education at the University. The charges for each of the two terms are as follows:

Tuition fee.....	\$30.00
Fee for Matriculation*.....	12.50
Total	<hr/> \$42.50

Students taking courses in the laboratories are charged a small fee for materials. Every student must keep on deposit with the Bursar two dollars as security for damages. Willful damage to University property is charged to the perpetrator, if known; otherwise it is charged to the general deposit for damages. Any balance is returned to the student at the end of the year.

Excellent board is furnished at the University Inn for fifteen dollars a month. Good board also is furnished at Commons for ten dollars a month. A few students can earn their board at Commons by waiting on the tables. The entire annual expenses need not exceed three hundred dollars, and they may be reduced to two hundred dollars.

It is confidently believed that no institution offers wider opportunities for self help to meritorious students of slender means. The desire is that no worthy boy, however poor, shall ever be turned away for lack of means. To such the University and town offer unusual opportunities for support. Many students are now working their way through college by every form of honorable labor. A number are here as a result of money earned or borrowed. Seventy are aided by loans, and about five hundred have received aid from the University in loans and scholarships in the past twenty years. A few stu-

* This fee includes also the gymnasium fee, the library fee, the fee for medical services.

dents are selected by the authorities as waiters at Commons. Otherwise all opportunities available in the University and town must be secured by the personal efforts of the individual, or with the assistance of the Faculty Committee on Self-Help. They are not assigned by the President.

DORMITORY ACCOMMODATIONS

The University buildings contain unfurnished rooms, available for the accommodation of something over three hundred students. There is no charge for service in addition to the rent. All rooms are fitted with electric lights. Room rent ranges from 75 cents to \$2.75 a month for each occupant, the price depending upon the location of the room.

All the buildings of the University are heated by hot water according to the most improved methods. In the dormitories the charge for light and heat will be \$2.00 a month for each room.

MEDALS AND PRIZES

THE COLONIAL DAMES PRIZE. (Established in 1908.) The North Carolina Society of Colonial Dames offers annually a first prize of fifty dollars and a second prize of twenty-five dollars for the best essays on some subject connected with the Colonial Period of North Carolina.

THE LITERARY ESSAY MEDAL. (Established in 1890.) A gold medal is offered annually by Professor Thomas Hume to that member of the Senior Class who shall present the best essay or thesis on some distinctly literary subject.

THE MANGUM MEDAL IN ORATORY. (Established in 1878.) A gold medal founded by the Misses Mangum, late of Orange county, in memory of their father, Willie Person Mangum, is continued by his granddaughters, Mrs. Julian A. Turner, Mrs. Stephen B. Weeks, and Miss Preston Leach, and awarded to that member of the Senior Class who shall deliver the best oration at Commencement.

THE BINGHAM PRIZE IN DEBATE. (Established in 1899.) This prize is offered by Mr. R. W. Bingham in memory of his great-grandfather, grandfather, father, and brother. It is given annually for excellence in debate. The contestants are representatives of the Literary Societies, and the contest is held on Monday evening of Commencement week.

THE KERR PRIZE IN GEOLOGY AND MINERALOGY. (Established in 1889.) A prize of fifty dollars is offered annually by Mr. William H. Kerr in memory of his father, Professor Washington Caruthers Kerr, to any undergraduate or graduate student, for the best thesis containing original work in the geology or mineralogy of North Carolina.

THE EBEN ALEXANDER PRIZE IN GREEK. (Established in 1887.) A prize of ten dollars is offered annually to that member of the Sophomore Class who shall present the best render-

ing into English of selected passages of Greek not previously read.

THE WORTH PRIZE IN PHILOSOPHY. (Established in 1883.) Mr. Charles William Worth, in memory of his father, David Easton Worth, of the class of 1853, will print the best thesis submitted by a student in Philosophy 4.

THE EARLY ENGLISH TEXT SOCIETY PRIZE. (Established in 1886.) A special prize is offered annually by the Early English Text Society, of London, for advanced work in Anglo-Saxon and Middle English.

THE BRYAN PRIZE. (Established in 1903.) A prize will be given annually by Mr. William Jennings Bryan for the best thesis in Political Science.

THE HUNTER LEE HARRIS MEMORIAL. (Established in 1903.) Dr. Charles Wyche, of St. Louis, offers annually, in memory of Hunter Lee Harris, of the class of 1893, a gold medal for the best original story by any student in the University.

THE THOMAS HUME PRIZE. (Established in 1904.) A prize of fifty dollars is offered annually by Mr. W. G. Peckham, of New York, for the best work in the Old English Ballads and Shakespeare or Milton.

THE WILLIAM CAIN PRIZE IN MATHEMATICS. (Established in 1908.) A gold medal is offered annually by Professor William Cain to that student who shall take the highest rank in Mathematics 4. No student will be recommended for the prize unless he attain to grade 2.

THE PRESTON CUP, given by the Hon. E. R. Preston, in memory of his brother, Ben Smith Preston, will be awarded annually to the undergraduate student who during the months September to April has done the best work of a journalistic nature.

Certain prizes are offered also in the Professional Schools of Law, Medicine, and Pharmacy. For these, see under the several schools.

REGULATIONS

REGISTRATION

All students are expected to present themselves for registration on *Monday, Tuesday, or Wednesday, September 9, 10, or 11, 1912*, and *Thursday or Friday, January 2 or 3, 1913*, between the hours of 9 A. M. and 4 P. M., at the office of the Registrar.

ARRANGEMENT OF COURSES

Every student, when he presents himself for registration, must submit a list of courses, required and elective, which he desires to pursue.

No student will be allowed to take less than 15 hours nor more than 18 hours of class-room work a week without special permission of the Faculty or of the President.

Students desiring to change their courses must make written application to the Committee on Courses for the desired change. The application will be considered by the committee and the instructors in the departments concerned and will be granted only after a careful consideration of the facts in each case. No changes will be permitted after the first Tuesday following the registration days except such as are granted after application to, and approval by, the Faculty.

Candidates for more than one degree shall not offer the same elective in two courses nor a required study in one course as an elective in another.

ASSIGNMENT OF ROOMS

The University buildings contain two hundred and four unfurnished double rooms, available for the accommodation of students. These rooms are assigned to students by the Bursar, at the beginning of each term, in the order of application.

The President reserves the right to require any student whom for any reason he considers an undesirable tenant to vacate a room in the University buildings.

All occupants are required to sign a contract subject to the following special rules :

1. In order to retain his room for the next session, a student must notify the Bursar in writing before *May 20*.

2. The room thus signed for will be retained until the *15th day of August*, provided a deposit of \$10 be made with the Bursar on or before that date. This deposit must be made by each holder of the room, making a deposit of \$20 in case of a double room. If the room is not occupied by those who have signed the contract and the rent is not paid in full, the room will be forfeited. In order to have a room reserved after the third day of registration, the rent must be paid in full. No one signing for or holding a room can transfer the same either before the opening of the term or during the term for which he rents the room. Any breach of this regulation leads to forfeiture of the rent paid.

3. Rooms not signed for or forfeited by failure to pay at the proper date will be assigned in the order of application.

4. No dogs shall be kept in the University dormitories. Breach of this regulation leads to forfeiture of the room.

CONDUCT

By order of the Board of Trustees the Faculty is directed to dismiss from the University any student who is known to engage in drinking intoxicating liquors, gambling, hazing in any form, or to be guilty of dissolute conduct.

Students persistently neglectful of duty, or addicted to boisterous conduct or rowdyism, may be requested to leave the University.

ATTENDANCE

Regular attendance upon lectures and recitations is required of all students.

In any term, absences are counted from the first regular meeting of each class. In no case will a student be considered present at any class until he has been registered as a member of that class. No student will be allowed more than five unexcused absences during a month. When this number is exceeded he will be placed on probation, and notified that any

further unexcused absences on his part during the next month may necessitate his withdrawal from college. This notice will be sent to his parents or guardian also.

Any student whose absences from a class during any month equal the number of scheduled meetings of the class for one week is required to stand a special examination on that month's work, within the first two weeks of the succeeding month at an hour to be announced by the instructor. In the case of those whose absences in a given month reach the number indicated above, and who fail to stand the examination provided for such absences, it is left to the discretion of the instructor to retain them in his class.

Students who are absent from a class during the months of December, January, or May as much as 25 per cent. of the scheduled meetings of the class must stand an examination for these months before being entitled to any grade on the term examination. This special examination is to be held in connection with the regular term examinations, or at some time during the examination period.

Students who are absent during any term as much as $33\frac{1}{3}$ per cent. of the scheduled meetings of the class, except in case of prolonged sickness necessitating at least half the absences, may at the discretion of the instructor be debarred from the term examination.

Attendance at Chapel is compulsory for all students in the University except for members of the professional departments and for such others as are specially excused. Absence from Chapel will subject the student to discipline by the Executive.

No student is allowed to absent himself from the University without written permission from the President or his representative. This permission may, at the discretion of the executive officer, be granted only upon the formal request of the parent or guardian.

EXAMINATIONS

Regular examinations on all subjects are held at the close of each term. Excuses from examinations are granted only in case of absolute necessity. Such an excuse, to be valid, must be obtained from the President by the day of examination, and

communicated officially to the instructor holding the examination.

Freshmen, Sophomores, and Juniors who have been excused from an examination or have received the grade 5 (see page 124) in any subject will be given two, and only two, opportunities to make good the deficiency by special examination. Those conditioned on the Fall term of a subject may make good the deficiency either in the following September, according to the schedule given below, or at the regular examination of the next lower class in January. Those conditioned on the Spring term of a subject may make good the deficiency either in the following September, according to the schedule given below, or at the regular examination of the next lower class in May. In case a student fails in both of the special examinations, he must repeat the subject with the class of the succeeding year. If the unremoved condition be in an elective subject not offered for the succeeding year, the student must take another elective valued at the same number of hours.

Seniors who have been excused from an examination or have received the grade 5 in any subject at either the Fall or Spring examination will be given but one opportunity to make good the deficiency by special examination, viz., during the regular examination period of the three lower classes in May.

Papers handed in at special examinations by students who have been officially excused from the regular examination will be graded. All others will be marked either "passed" or "failed." Students who hand in papers at regular examinations are considered to have relinquished any claim to grades on special examinations.

Students who absent themselves from regular examinations without having obtained an official excuse, and those who are present at the regular examinations but do not hand in papers, are given the grade 6 (see page 124). They are required to repeat the subject with the next lower class, or, in case of an elective not offered in the succeeding year, to take another elective valued at the same number of hours.

A student wishing a special examination in any subject must deposit an application in the office of the Registrar at least one week before the beginning of the period of regular examinations.

further unexcused absences on his part during the next month may necessitate his withdrawal from college. This notice will be sent to his parents or guardian also.

Any student whose absences from a class during any month equal the number of scheduled meetings of the class for one week is required to stand a special examination on that month's work, within the first two weeks of the succeeding month at an hour to be announced by the instructor. In the case of those whose absences in a given month reach the number indicated above, and who fail to stand the examination provided for such absences, it is left to the discretion of the instructor to retain them in his class.

Students who are absent from a class during the months of December, January, or May as much as 25 per cent. of the scheduled meetings of the class must stand an examination for these months before being entitled to any grade on the term examination. This special examination is to be held in connection with the regular term examinations, or at some time during the examination period.

Students who are absent during any term as much as $33\frac{1}{3}$ per cent. of the scheduled meetings of the class, except in case of prolonged sickness necessitating at least half the absences, may at the discretion of the instructor be debarred from the term examination.

Attendance at Chapel is compulsory for all students in the University except for members of the professional departments and for such others as are specially excused. Absence from Chapel will subject the student to discipline by the Executive.

No student is allowed to absent himself from the University without written permission from the President or his representative. This permission may, at the discretion of the executive officer, be granted only upon the formal request of the parent or guardian.

EXAMINATIONS

Regular examinations on all subjects are held at the close of each term. Excuses from examinations are granted only in case of absolute necessity. Such an excuse, to be valid, must be obtained from the President by the day of examination, and

offered in the succeeding years, must take another elective valued at the same number of hours.

A student who has failed to pass all the examinations of the year in any college study may not take a higher class in that department, until he makes good his deficiency.

A student who, at the close of the period of special examinations in September, is deficient by an amount equal to eight hours of class-room work for a year will be ranked with the next lower class.

In addition to the semi-annual reports, there are sent out during the session six monthly reports in which the standing of students is indicated in a general way.

CERTIFICATES

A certificate is granted to a student who has completed with credit, in any department except those of Mathematics, Chemistry, Physics, and Geology, all work required for a degree together with elective work in the same department. (For detailed statement of requirements, see under the several departments of instruction.)

GRADUATION

Each Senior will be officially informed by the Registrar in August of all deficiencies standing against him.

Every member of the Senior Class is required to write a thesis or an oration for graduation. Those electing theses must announce their subjects by November 15, to the Dean of the Faculty, who will report them to the professors in the departments concerned. On May 1 the theses shall be read before the professors, subject to criticism and correction. The corrected and approved theses must be handed to the Registrar in typewritten form on or before May 15.

The number of orations is limited to four. The candidates must be members of the College or the School of Applied Science, and must announce their subjects to the Dean of the Faculty by February 1. The orations shall be delivered in private before a committee of the Faculty on May 1, who shall decide upon the relative merits of the orations. The four successful candidates are known as the Commencement Orators of the Senior Class.

Each student is required to subscribe his name to the following pledge on every paper: "*I hereby certify that during this examination I have neither given nor received aid.*" No paper without the pledge will be read.

The order of examinations for the removal of conditions in September, 1912, will be as follows:

Wednesday, September 4.

10 A. M. German. 2:30 P. M. Mathematics.
French.

Thursday, September 5.

10 A. M. Latin. 2:30 P. M. Geology.
Philosophy, Pedagogy,

Friday, September 6.

10 A. M. Physics. 2:30 P. M. Chemistry.
Greek. History.
Economics.

Saturday, September 7.

10 A. M. English. 2:30 P. M. Zoology.
Botany.

STANDING

Semi-annual reports of the standing of all students in all the studies of the previous term are sent to parents or guardians. The reports are based upon the following system of marking:

Grade 1, 95-100 per cent.
Grade 2, 90-95 per cent.
Grade 3, 80-90 per cent.
Grade 4, 70-80 per cent.
Grade 5, 60-70 per cent.
Grade 6, below 60 per cent.

Students must attain a grade of 4 to pass in any study. Grade 5 indicates that the student is conditioned, but may remove the deficiency by special examination, as explained on page 123. Students receiving grade 6 in any study must take such study again with the next lower class, or in case of an elective not

offered in the succeeding years, must take another elective valued at the same number of hours.

A student who has failed to pass all the examinations of the year in any college study may not take a higher class in that department, until he makes good his deficiency.

A student who, at the close of the period of special examinations in September, is deficient by an amount equal to eight hours of class-room work for a year will be ranked with the next lower class.

In addition to the semi-annual reports, there are sent out during the session six monthly reports in which the standing of students is indicated in a general way.

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The number of orations is limited to four. The candidates must be members of the College or the School of Applied Science, and must announce their subjects to the Dean of the Faculty by February 1. The orations shall be delivered in private before a committee of the Faculty on May 1, who shall decide upon the relative merits of the orations. The four successful candidates are known as the Commencement Orators of the Senior Class.

ATHLETIC AND OTHER ORGANIZATIONS

No student will be allowed to take part in athletic contests, concerts, debates, etc., entailing absence from the University, whose parent or guardian objects to such participation.

A student who was in attendance upon the University during a previous term or session must have passed satisfactory examinations upon at least eight hours of work before he will be allowed to represent the University in any athletic contest or in any other public capacity.

No student reported as deficient in a majority of his classes may participate in any athletic contest or otherwise publicly represent the University, until the deficiency is made good.

No team or club will be allowed to be absent from the University for more than ten lecture days during the term.

The manager of each athletic team or musical club shall submit to the Athletic Committee or to the President a schedule of all engagements before positive arrangements are made.

The rules governing the eligibility of players are as follows :

1. Before any student can become a member or a substitute member of any athletic team in the University, and take part in any intercollegiate contest, he must make application to the Committee on Athletics in the University and secure the endorsed approval of that Committee to his application. It shall be the duty of the Athletic Committee to have the Executive officers of the University endorse such application to the effect that the applicant is a regular student of the University, registered on or before October 12 of the fall session.

2. It shall be the duty of the Athletic Committee to inquire into and make a record of the athletic experiences of the applicant, and it shall be the duty of the applicant to appear before the Committee and answer on his honor such questions as the Committee may see fit to ask.

3. It shall be the duty of the Athletic Committee to require a pledge in writing of the applicant, certifying on his honor that he has never accepted, directly or indirectly, remuneration, compensatory gift, valuable consideration, or promise thereof, for his athletic services, and that he is in the proper and strict sense of the word an amateur player in collegiate athletic sports, before the Committee endorses his application.

4. No student of the University who has been a member or a substitute member of a baseball or football team at another college* or university during the preceding college year shall be permitted to become a member of either baseball or football team at this University during the college year in which he matriculates until he shall have been a student in residence at this University for at least five months.

5. No person whose name is in the faculty list or appears in the catalogue list of officers of instruction and administration of the University, and who receives remuneration therefrom, shall be a member of any athletic team representing the University.

6. Whereas a member of an athletic team of this University is a representative student and enjoys special honor in thus representing the University, this privilege shall be withheld from any student whose scholastic standing is discreditable.

7. Any student who has participated as a player on a college team in either football or baseball for a period of four years shall thereafter be ineligible for such athletic contests of the University.

FRATERNITIES

Undergraduate students may join fraternities after registration in their Sophomore year. Fraternity men are not allowed to pledge Freshmen to join fraternities.

*The term college is hereby interpreted to mean any college named in Table 28 of the Report of the U. S. Commissioner of Education, which has not less than 150 male students of collegiate grade recorded in the catalogue of the institution in question as students of the college year preceding the applicant's entrance into the University.



PART FOUR

**THE SCHOOL OF LAW
THE SCHOOL OF MEDICINE
THE SCHOOL OF PHARMACY
THE SUMMER SCHOOL FOR TEACHERS**

THE SCHOOL OF LAW

FRANCIS PRESTON VENABLE, Ph. D., LL. D., PRESIDENT.

LUCIUS POLK MCGEHEE, A. B., DEAN.

LUCIUS POLK MCGEHEE, A. B., *Professor of Law.*

PATRICK HENRY WINSTON, *Professor of Law.*

ATWELL CAMPBELL MCINTOSH, A. M., *Professor of Law.*

FRANCIS TELL DUPREE, *Librarian of the School.*

The law school which developed into the Law School of the University was founded in 1843 at Chapel Hill as a private school by William H. Battle, then a judge of the Superior Court, later a Justice of the Supreme Court of the State. In 1845 Judge Battle was made Professor of Law in the University and it was provided that the degree of Bachelor of Laws should be conferred on those completing the prescribed two year course. From the records of the University, however, it seems that few degrees were actually conferred. For a long time the school maintained a certain independence of the University. The Professor of Law received no salary though he enjoyed the fees from his classes, and the students were not entirely subject to the discipline of the University.

In 1899 the school was completely incorporated into the University, with the late Judge James C. MacRae, previously a Justice of the Supreme Court of North Carolina, as the first Dean of the Law School.

REQUIREMENTS FOR ADMISSION

For admission to the regular work of the school, students, unless they are "special students" as explained below, must have completed fourteen units of work. This amount of work is about equivalent to four years training in a high school. It is the same as the entrance requirement to the Freshman class

in the academic department of the University, and will be found explained on page 32 of General Catalogue.

Students over twenty years of age who are not able to qualify as regular students may be admitted as "special students" upon presenting satisfactory evidence that they have received such training as will enable them to make profitable use of the opportunities offered in the school.

Seniors in the College will be admitted to take as electives courses selected, with the approval of the Dean, from the work of the law school.

The days for the registration of law students are the same as for the registration of students for the College. See the General Catalogue, page 120, or the University calendar.

DEGREE OF LL. B.

The degree of Bachelor of Laws (LL. B.) will be conferred upon students who have satisfactorily completed the entire courses prescribed for the Junior and Senior Classes of the Law School, and who satisfy the following conditions:

(a) Candidates must have completed academic courses equivalent to the work of the Freshman and Sophomore Classes in the University.

(b) Candidates must present satisfactory theses on legal subjects approved by the Dean.

(c) Candidates must have spent at least one year in residence at the University as students in the School of Law.

In the discretion of the Law Faculty, credit may be given to candidates for courses completed in other Schools of Law of recognized standing.

Plans have been considered for enlarging and lengthening the curriculum, and the Law Faculty has been authorized to formulate a three years' course of study for candidates for the degree of Bachelor of Laws. It is not considered wise to make this change at present, and it will be duly announced in the Catalogue.

CERTIFICATES

Any student who has been in regular attendance in the School of Law and who has satisfactorily completed one or

more courses is entitled to a certificate of attendance and standing.

NUMBER OF HOURS WORK REQUIRED OR PERMITTED

No student will be permitted to take more than eighteen hours of work weekly except with the special permission of the Faculty.

No student, unless he is also taking other courses in the University, will be permitted to take less than ten hours of work weekly, nor will a student taking less than ten hours weekly be considered as studying law within the rule of the Supreme Court requiring two years' study of law as a necessary preliminary of applicants for license to practice in North Carolina.

COURSES OF INSTRUCTION

The courses offered and the general order in which they are taken up are indicated in the following programme of studies which is arranged to cover two years, known as the Junior Year and the Senior Year. The method of instruction varies in the different courses. In some text-books and lectures with collateral reading of cases form the basis of work. In others the subject is developed directly from the study of selections of decided cases, and quizzes thereon.

Junior Year

FALL TERM.

ELEMENTARY LAW: a general outline of the field of legal studies; Clark's *Elementary Law*. *Two hours a week*. Professor WINSTON.

CONTRACTS: the general principles of contract; McIntosh's *Cases on Contracts*. *Four hours a week*. Professor McINTOSH.

PERSONS: Domestic Relations, including husband and wife with marriage and divorce, parent and child, guardian and ward, infancy, insanity, drunkenness, and aliens; Woodruff's *Cases on Domestic Relations and the Law of Persons*, and selected cases. *Two hours a week*. Professor McGEHEE.

BAILMENTS: bailments, carriers, telegraphs, and telephones; Goddard's *Cases on Bailments and Carriers*. *Two hours a week*. Professor MCINTOSH.

AGENCY: Mechem's *Cases on Agency*. *Two hours a week*. Professor MCGEHEE.

PROPERTY: a rapid outline of Personal Property, after which the study of Real Property is begun; lectures; Tiffany's *Modern Law of Real Property*. *Three hours a week*. Professor WINSTON.

SPRING TERM.

CRIMINAL LAW: May's *Criminal Law*, with statutes and selected cases. *Two hours a week*. Professor WINSTON.

TORTS: Burdick's *Torts*, Mordecai and McIntosh's *Cases on Remedies*. *Three hours a week*. Professor MCINTOSH.

SALES: (Case-book to be announced.) *Two hours a week*. Professor MCGEHEE.

NEGOTIABLE INSTRUMENTS: Bigelow's *Cases on Bills and Notes*, and *The Negotiable Instrument Law*. *Two hours a week*. Professor MCINTOSH.

QUASI-CONTRACTS: lectures and selected cases. *One hour a week*. Professor MCGEHEE.

PROPERTY: the law of Real Property as presented in Tiffany's *Modern Law of Real Property* is completed. *Three hours a week*. Professor WINSTON.

PLEADING AND PRACTICE: a study of remedies and pleading, which continues throughout the remainder of the student's course, is begun. This term is devoted to common law remedies and common law pleading. Shipp and Daish's *Cases on Common Law Pleading*; Mordecai and McIntosh's *Cases on Remedies*. *Two hours a week*. Professor MCGEHEE.

Senior Year

FALL TERM.

CONSTITUTIONAL LAW: Boyd's *Cases on Constitutional Law* and selected cases; lectures. *Four hours a week*. Professor MCGEHEE.

EQUITY: Bispham's *Principles of Equity*. *Three hours a week.* Professor WINSTON.

EVIDENCE: Wigmore's *Cases on Evidence*. *Three hours a week.* Professor MCINTOSH.

INSURANCE: Richard's *Cases on Insurance*. *Two hours a week.* Professor WINSTON.

FEDERAL COURTS: The United States Courts cases; the study of the law and procedure in selected topics; Hughes on *Federal Jurisdiction*. *One hour a week.* Professor MCINTOSH.

PLEADING AND PRACTICE: after a study of equity pleading and procedure, pleading under American code system is begun; *North Carolina Code of Civil Procedure*, with text-book to be announced. *Two hours a week.* Professor McGEHEE.

SPRING TERM.

PRIVATE CORPORATIONS: Clark on *Corporations*, with cases. *Three hours a week.* Professor McGEHEE.

* **PUBLIC CORPORATIONS:** Elliott's *Public Corporations*, with cases. *Two hours a week.* Professor MCINTOSH.

* **BANKRUPTCY AND INSOLVENCY:** Assignment for Benefit of Creditors, Creditor's Remedies, and the Federal Bankruptcy Act; lectures, selected cases, the Federal bankruptcy act. *Two hours a week.* Professor MCINTOSH.

PARTNERSHIP: Mechem's *Cases on Partnership*. *Two hours a week.* Professor WINSTON.

* **SURETYSHIP:** Bunker's *Cases on Suretyship*. *One hour a week.* Professor WINSTON.

WILLS AND ADMINISTRATION: Costigan's *Cases on Wills and Administration*. *Two hours a week.* Professor WINSTON.

* **CONFLICT OF LAWS:** lectures and cases. *One hour a week.* Professor MCINTOSH.

* From the subjects marked with an asterisk the student may omit a course or courses amounting to two hours of work weekly, devoting the time gained to the preparation of his thesis.

PRACTICE AND PROCEDURE: Code pleading and practice; *North Carolina Code of Civil Procedure*; cases and lectures. *Two hours a week.* Professor McGEHEE.

SCHEDULE OF LAW RECITATIONS
Senior Studies in CAPS; Junior in small type.

	8:30	9:45	10:40	11:35	12:30
Fall	Bailments	CONST. L.	FED. CTS.	Agency	EVIDENCE
MONDAY					
Spring	Bills & Notes	PRIV. CORP.	Plead., Etc.	Sales	BANKR'CY
Fall	PLEAD., Etc.	EQUITY	Property	Contracts	CONST. L.
TUESDAY					
Spring	PLEAD., Etc.	PART'SHIP	Property	Torts	MUN. CORP.
Fall	Bailments	CONST. L.	Persons	Contracts	INSURANCE
WEDNESDAY					
Spring	Bills & Notes	PRIV. CORP.	Quasi-Contr.	BANKR'CY	WILLS, Etc.
Fall	Elem. Law	EQUITY	Property	Contracts	EVIDENCE
THURSDAY					
Spring	Crim. Law	SURETYS'P	Property	Torts	CONFL. L.
Fall	PLEAD., Etc.	CONST. L.	Persons	Agency	INSURANCE
FRIDAY					
Spring	PLEAD., Etc.	PRIV. CORP.	Plead., Etc.	Sales	WILLS, Etc.
Fall	Elem. Law	EQUITY	Property	Contracts	EVIDENCE
SATURDAY					
Spring	Crim. Law	PART'SHIP	Property	Torts	MUN. CORP.

MOOT COURT

A Moot Court for practice in the preparation of pleadings, the argument of law points, and the actual conduct of trials is a feature of the school. It is conducted by the students with the assistance and co-operation of the Faculty. The court meets weekly, a member of the Faculty presiding.

UNIVERSITY PRIVILEGES

Students in the Law School will be admitted without additional expense to the courses given in the Department of Eco-

nomics and History in the University, and to the courses in Public Speaking and English, subject to the rules stated as to the number of hours which a student may take. A student taking such a course in the University must, of course, satisfy the entrance requirements for the course selected.

Students of the School are also entitled to become members of the Dialectic and Philanthropic Literary Societies of the University, where they may take part in or witness debates of a high order and train themselves in parliamentary law. They are further admitted to all the privileges of the University library of 55,000 volumes, the University gymnasium, and the organizations of the University generally, literary, social, and athletic.

THE LAW LIBRARY

The law library is housed in the Law Building and contains about 4,000 volumes. The annual revenue of a fund raised by the former students and friends of the late Professor John Manning, LL. D., who presided over the School for many years, is devoted to the purchase of books for the library. Free access to the library is allowed to the students of the School, though they are not permitted to take books from the building.

THE BRYAN PRIZE

A prize of twenty-five dollars in gold is offered each year by Shepard Bryan, Esq., of the Atlanta Bar, in honor of his father, the Honorable Henry R. Bryan, of New Bern, N. C., to be awarded to the member of the Senior Law Class who shall submit the best thesis upon an approved legal subject.

FEES AND EXPENSES

Tuition for Fall and Spring terms, each..	\$35.00
Registration fees.....	12.50

There are no scholarships in the School. Good board is furnished at Commons Hall for \$10 a month and at the University Inn for \$15 a month. In the village board may be secured for from \$8 to \$15, or with rooms, from \$10 to \$20 a month.

The rent of unfurnished rooms in the dormitories ranges from seventy-five cents to \$2.50 a month, for each occupant;

and for each room a charge of one dollar a month is made for electric light and one dollar a month for heat.

ADMISSION TO THE BAR OF NORTH CAROLINA

Admission to the Bar of North Carolina is under the direct control of the Supreme Court of the State. The rules of the Court as to the examination and licensing of applicants are given below p.??? Where circumstances and means permit, the reading should be done at a regular school of law. But the requirements of the rule may be satisfied by private reading. Students who have read law for a year privately or in a law office may, by attending the school for one year, beginning either in September or January, and by attending a term of the summer school, have an opportunity to study or review the course required by the Supreme Court of applicants for license.

To do this, it will be necessary for such students to select, with the approval of the Faculty, subjects from the regular courses of both the Junior and Senior years. Such a course is not advised or approved except in cases where limited means render it a regrettable necessity. Two years spent in systematic study under competent instructors is a minimum period for mastering even the elements of so wide, complicated, and technical a subject as the law. The student should remember that he is preparing for his life-work, and only detriment to that life-work can in general result from a feverish anxiety to cut short the period of preparation and to abridge the studies which experience has marked out for the acquisition of the necessary qualifications.

THE SUMMER LAW SCHOOL

A session of the School of Law is maintained during each summer for the purpose of providing:

- 1st. A course for those who wish to begin the study of law.
- 2nd. A thorough review of the course prescribed by the Supreme Court of North Carolina for application for license.
- 3rd. An opportunity for instruction for men who cannot become resident students during the scholastic year.

4th. An opportunity for members of the Bar to review certain branches of law.

SESSION

The term for the summer of 1912 begins June 13 and ends August 23, three days prior to the examination before the Supreme Court for admission to the Bar of North Carolina.

LECTURES AND RECITATIONS

At this session two daily lectures and recitations of one hour and a half each will be held by two professors of the Law Faculty. In addition there will be frequent quizzes. The two courses offered are intended to cover the requirements for reading prescribed, given below, in the rules of the Supreme Court of North Carolina. The instruction is conducted by means of text-books, lectures, leading cases, quizzes, and moot court.

An outline of the work and of the time assigned to the various subjects is approximately as follows:

Domestic Relations (6 lectures); Contracts (18 lectures); Torts (12 lectures); Corporations (6 lectures); Evidence (6 lectures); Pleading and the Code (12 lectures); Criminal Law (8 lectures); Personal Property (6 lectures); Real Property (20 lectures); Executors and Administrators (6 lectures); Equity (9 lectures); Constitutional Law (9 lectures); Legal Ethics (2 lectures).

The text-books used will be, as far as possible, those used at the regular session of the school, but any standard text-book on any of these subjects will be accepted.

EXAMINATIONS

No entrance examination is required; but each student must satisfy the faculty that he has sufficient general education to enable him to take the course with profit to himself. Examinations are required as each subject is completed, and at the end of the term certificates to that effect are issued to such students as have passed with credit all examinations in both courses. These certificates will not entitle the recipients to any credit in the work of the regular school.

FEES AND EXPENSES

Tuition for term.....	\$30.00
Registration and Incidental Fees.....	5.00

The above mentioned fees cover privileges of University room, will cost from \$10 to \$20 a month; without room, from library, gymnasium, and baths. Board in the village, with \$10 to \$15.

For further information address the President of the University or the Dean of the School of Law, Chapel Hill, N. C.

**RULES OF THE SUPREME COURT OF NORTH CAROLINA
AS TO ADMISSION TO THE BAR.**

1. Applicants for license to practice law will be examined on the first Monday in February and the last Monday in August of each year, and at no other time. All examinations will be in writing.

2. Each applicant must have attained the age of twenty-one years or will arrive at that age before the time for the next examination, and must have studied: Ewell's Essentials, 3 vols.; Clark on Corporations; Schouler on Executors; Bispham's Equity; Clark's Code of Civil Procedure; Volume I, Revisal (1905) of North Carolina; Constitution of North Carolina; Constitution of the United States; Creasy's English Constitution; Sharswood's Legal Ethics; Shepard's Constitutional Text-Book; Cooley's Principles of Constitutional Law. *Or their equivalents.*

Each applicant must have read law for two years at least, and file a certificate of good moral character, signed by two members of the bar who are practicing attorneys of this Court, and also a certificate of a Dean of a Law School, or of a member of the bar of this Court that the applicant has read law under his instruction or to his knowledge or satisfaction, for two years, and upon examination by said instructor has been found competent and proficient in said course. Such certificate, while indispensable, will, of course, not be conclusive evidence of proficiency. An applicant from another state can file a certificate of good moral character signed by any State officer of the state from which he comes. * * * *

3. Each applicant shall deposit with the clerk the sum of \$23.50 for the license and the clerk's fee before he shall be examined. * * *

THE SCHOOL OF MEDICINE

FACULTY

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., PRESIDENT.

ISAAC HALL MANNING, M. D., DEAN.

CHARLES STAPLES MANGUM, A. B., M. D., *Professor of Anatomy.*

ISAAC HALL MANNING, M. D., *Professor of Physiology.*

WILLIAM DEBERNIERE MACNIDER, M. D., *Professor of Pharmacology.*

WADE HAMPTON BROWN, B. S., M. D., *Professor of Pathology.*

ROBERT BAKER LAWSON, M. D., *Associate Professor of Anatomy.*

SHELDON ASA SAUNDERS, *Assistant in Anatomy.*

DAVID BRYAN SLOAN, A. B., *Assistant in Bacteriology.*

THADDEUS EARL WILKERSON, *Assistant in Histology.*

JAMES AMBLER SPEIGHT, *Assistant in Histology.*

HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*

EDWARD VERNON HOWELL, A. B., Ph. G., *Professor of Pharmacy.*

CHARLES HOLMES HERTY, Ph. D., *Smith Professor of General and Industrial Chemistry.*

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

ALVIN SAWYER WHEELER, Ph. D., *Associate Professor of Organic Chemistry.*

JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*

ROBERT ANDERSON HALL, Ph. D., *Associate Professor of General Chemistry.*

JOHN GROVER BEARD, Ph. G., *Instructor in Pharmacy.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

WILLIAM BATTLE COBB, *Assistant in Botany.*

PAUL ROBY BRYAN, *Assistant in Chemistry.*

CARNIE BLAKE CARTER, *Assistant in Chemistry.*
CLARENCE BALLEW HOKE, *Assistant in Chemistry.*
FLEMING ROSS WEAVER, *Assistant in Chemistry.*
CALEB KNIGHT BURGESS, *Assistant in Physics.*
WESLEY CRITZ GEORGE, A. B., *Assistant in Zoology.*
LEE FRANKLIN TURLINGTON, A. B., *Assistant in Zoology.*

HISTORICAL SKETCH

The School of Medicine was established in 1879 and Dr. Thomas W. Harris was chosen to direct its work. A course of two years was offered in theoretical and practical medicine, but owing to the limited facilities this plan was not found practicable and was abandoned in 1886. In 1890, however, the School was re-opened and, under the direction of Dr. R. H. Whitehead, a course of one year, embracing only the elementary subjects — Anatomy, Chemistry, Physics, Physiology, etc.— was offered. As the requirements leading to the degree of Doctor of Medicine were increased by the leading medical colleges, the course was extended to embrace the first two years of the four year curriculum. In 1902 a Clinical Department was established at Raleigh, but since the funds for a proper equipment could not be provided, this was abandoned in 1909. In 1898 the School was admitted to membership in the Association of American Medical Colleges, and in 1901 was incorporated as an integral part of the University, on the same footing as the Graduate and the other professional schools.

COURSES OFFERED

The following courses are offered:

1. A Preparatory or Pre-medical Course: a course of one year of college work in which special attention is given to Chemistry, Physics, and Biology. This is the minimum requirement for admission to the Medical School.
2. A Combined Course Leading to the Degree of Bachelor of Science: This consists of a prescribed college course of two years and the medical course of two years. On completing this four year course the

School of Applied Science offers the degree of Bachelor of Science. The student is therefore able to obtain the scientific degree and the degree of Doctor of Medicine in six years.

3. The Medical Course: The American Medical Association, the Association of American Medical Colleges, and other medical organizations recommend for the degree of Doctor of Medicine a graded course of four years in a medical school. They also suggest an arrangement of subjects in which the so-called laboratory subjects are to be given in the first two and the clinical subjects in the last two years. The medical course covers the subjects of the first two years. On completing the course a certificate is given which is accepted in full by most of the medical schools.

THE CURRICULUM

Preparatory or Premedical Course

English 1, 3 hrs.	Chemistry 1, 3 hrs.
Zoology 1, 3 hrs.	Chemistry 3A, 1½ hrs.
Physics A, 3 hrs.	Chemistry 4A, 1 hr.

The Combined Course: College Studies

FIRST YEAR		SECOND YEAR	
	English 1, 3 hrs.		English 2, 3 hrs.
	Mathematics 1, 4 hrs.		Physics 1, 3 hrs.
	Chemistry 1, 3 hrs.		Zoology 1, 3 hrs.
	Botany 1, 3 hrs.		Chemistry 3, 2 hrs.
Select one	{ German 1, 3 hrs.	Select one	{ German 1 or 2, 3 hrs.
	{ French, 1, 3 hrs.		{ French 1 or 2, 3 hrs.
	{ Latin 1, 4 hrs.		{ Latin 1, 4 hrs.
		Select one	{ Drawing 1, 2 hrs.
			{ History 1, 3 hrs.

In the College of Liberal Arts two hours of laboratory work are counted as one hour. In the premedical course and in the combined course this system is followed. In the medical curriculum two hours of laboratory work are counted as two hours.

The Medical Course

FIRST YEAR.

Organic Chemistry (Chem.10) : *Six hours a week until April 1.*
 Toxicology (Chem. 9) : *Six hours a week from April 1 to the end of the term.*

COMPARATIVE ANATOMY (Zoology 2A).—*Six hours a week, fall term.*

HUMAN ANATOMY.—*Ten hours a week, fall and spring terms.*

HISTOLOGY.—*Nine hours a week, fall term.*

EMBRYOLOGY.—*Six hours a week, spring term.*

PHARMACY.—*Six hours a week, spring term.*

SECOND YEAR.

HUMAN ANATOMY.—*Nine hours a week, fall term.*

NEURO-ANATOMY.—*Six hours a week, fall term.*

BACTERIOLOGY.—*Nine hours a week, fall term.*

PHYSIOLOGY.—*Five hours a week, fall term; ten hours a week, spring term.*

PHYSIOLOGICAL CHEMISTRY.—*Six hours a week, fall term.*

PATHOLOGY.—*Twelve hours a week, spring term.*

PHARMACOLOGY.—*Ten hours a week, spring term.*

MINOR SURGERY—Normal Physical Diagnosis.—*Four hours a week, spring term.*

SUMMARY OF FIRST AND SECOND YEARS.

<i>Subjects</i>	<i>Hours</i>
Chemistry	288
Anatomy	828
Physiology	255
Bacteriology	144
Pathology	200
Pharmacology	155
Pharmacy	90
Minor Surgery and Physical Diagnosis.....	60

Total.....2020 hours.

ADMISSION

Candidates for admission and students already members of the School should present themselves to the President and Dean of the School for registration on *Monday, Tuesday or Wednesday, September 9, 10, or 11, 1912, and Thursday or Friday, January 2, or 3, 1913.*

ENTRANCE REQUIREMENTS

The requirements for admission to the premedical and the combined courses are the same as for the College of Liberal Arts. (See page 31.)

The requirements for admission into the Medical School are the satisfactory completion of one year in the University or certificates of its equivalent from an approved college. Students may be admitted to the second year of the Medical course upon furnishing certificates of having completed the first year in an approved Medical school, or upon passing an examination upon the subjects studied in the first year. An examination will not be allowed until the candidate furnishes a certificate of having attended eighty per cent. of the hours required.

EXAMINATIONS

Regular examinations are held during the two regular examination periods of the College of Liberal Arts. Special examinations will be given for the purpose of making up deficiencies during Registration Week. A fee of \$5.00 will be charged each applicant for an examination at any other time. An examination will not be allowed if the student is charged with ten per cent. of unexcused absences or with absences amounting to twenty per cent. of the total number of hours assigned to the subject.

CERTIFICATES

A certificate will be granted to those who complete the premedical and the medical courses. If a student fails on any one of the required subjects, a statement indicating the subjects completed will be given.

EXPENSES

The following are the charges a term payable at the beginning of each term in September and January respectively:

Tuition	\$35.00
Fee for matriculation (registration, library, infirmary, etc.).....	12.50
Total.....	<hr/> \$47.50

In addition the following fees will be charged for laboratory courses a term:

Physiological Chemistry, \$5.00; Chemistry 10, \$5.00; Zoology 1, \$3.00; Zoology 2, \$5.00; Experimental Physiology and Pharmacology, \$5.00; Pharmacy, \$5.00; Bacteriology, \$2.50; Pathology, \$2.50; for the use of the microscope, 50 cents.

The laboratory fees are divided approximately equally among the four terms. The total charge in the first year is between \$55.00 and \$59.00 a term, in the second year between \$57.50 and \$58.50 a term.

The following are the charges a term for students pursuing the premedical course:

Tuition	\$30.00
Matriculation, etc.	12.50
Laboratories	5.00
Total.....	<hr/> \$47.50

Good board is furnished at Commons Hall for \$10 a month and at the University Inn for \$15 a month. The rent of unfurnished rooms in the dormitories ranges from seventy-five cents to \$2.75 a month for each occupant. For each room a charge of \$2.00 a month is made for electric light and heat.

PRIZES AND SCHOLARSHIPS

THE HARRIS PRIZE. (Established in 1895.) Mrs. Thomas W. Harris offers in memory of the late Dr. Thomas W. Harris, a pocket case of instruments to that student who shall make the best grade in anatomy.

THE WOOD SCHOLARSHIP. (Established in 1895.) Mrs.

Mary Sprunt Wood, of Wilmington, has founded, in memory of her husband, the late Dr. Thomas Fanning Wood, a scholarship covering the tuition and fees.

THE GENERAL PLAN OF INSTRUCTION

In the arrangement and conduct of the courses an effort is made to follow modern ideals in medical education. A year of college training in Chemistry, Physics, and Biology is insisted upon as the minimum preparation for the study of medicine. In order, however, to encourage a more thorough preparation, the degree of Bachelor of Science is offered to those students who complete a prescribed college course of two years and the two years of the medical course. In offering this degree the value of a properly directed college course of four years is not minimized, but on the contrary is earnestly recommended.

In the arrangement of the course of studies the attempt is made to have the subjects follow in natural sequence. Elementary courses in General Chemistry, Physics, and Biology having been completed in the pre-medical year, more advanced courses in these subjects are pursued. In the first year Organic Chemistry, and Comparative Anatomy, with special reference to the requirements of the medical student, Gross Human Anatomy, Histology, Embryology, and an elementary course in Pharmacy are studied. In the second year Human Anatomy, Physiological Chemistry, and Bacteriology are completed in the first half; Materia Medica and Pharmacology, Pathology, and Normal Physical Diagnosis in the second half. Physiology is begun and completed in the second year. At the expiration of the two years the student will have completed the fundamental branches of medicine, and will be prepared to enter upon the study of the more practical subjects.

In the plan of instruction the laboratory method, supplemented with systematic lectures and demonstrations, is pursued. The lectures and the laboratory courses are given contemporaneously as far as possible, for it is believed that the student, in this way, not only acquires technical skill, but a more thorough knowledge of the subject.

When advisable the classes are divided into small sections, so that the work of the student is under the direct supervision

and close observation of the instructor. Frequent oral and written quizzes and a final examination are required in each subject, and in the laboratory courses each student is required to record the observations in a note book, which must be submitted from time to time to the instructor and is held for a part of the final grade.

Regular attendance upon all classes is required of each student. A student who is absent twenty per cent. of the total number of hours assigned each subject, or is charged with ten per cent. of unexcused absences, is denied the privilege of an examination in the subject in which the absences occur.

EQUIPMENT

At a meeting of the Executive Committee of the Board of Trustees held at Raleigh in March, 1911, an appropriation of \$50,000 was made for the erection and equipment of a new medical building. This building, which bears the name of Caldwell Hall, is now completed.

The new building is located on the south side of Cameron avenue opposite Davie Hall, facing north. The front wall of the main building is on a line with the rear of the Carr building. This location secures the north light in all of the laboratories used for microscopic work.

To the north is the main building, 117 x 64, and adjoining this, to the south, is a wing, 63 x 36, each containing a basement and two floors. The first floor of the main building is bisected from north to south by an entrance hall 14 feet wide, and from east to west by a corridor 8 feet wide, dividing the floor space into four equal parts. Each part is subdivided into one large class laboratory, 34 x 27, and two private laboratories, 14 x 12½. The class laboratories lie next to the entrance hall. Those on the north side will be used for microscopic work in Histology and Embryology. They are lighted from five large windows on the north side, and in order to secure uniform illumination the upper sashes are provided with prismatic glass. On the south side are the laboratories for Physiological Chemistry and Experimental Physiology.

The private laboratories are located on the farther side of the class laboratories. The corner laboratories, with two large double windows, will be occupied by the instructors. The

private laboratory adjoining the corridor will be occupied by the assistants. The office of the Dean is in one of the private laboratories on this floor and may be entered from the west end of the corridor.

The second floor is a duplicate of the first floor with the exception that the space above the entrance hall is enclosed and is used for the Departmental Library. On the north side are the Bacteriological and Pathological laboratories, and on the south side the Pharmacological laboratory and a lecture room. The laboratories here have the same arrangement as those on the first floor. Nearly opposite the Pathological laboratory is the Pathological Museum.

At the ends of the corridor on the first and second floors are small fire proof rooms which will be used for incubators, thermostats, and other purposes requiring the continuous use of oil or gas lamps.

In the basement of the main building provision is made for the care of animals. The floors of the several apartments are covered with cement and are inclined to a common drain pipe. The rooms are well ventilated, lighted, and heated, and are provided with all necessary facilities for proper sanitation.

On the first floor of the wing adjoining the main building is the main lecture hall, and in the rear of this is the amphitheatre for anatomical demonstrations. In the rear of the amphitheatre is the Anatomical Museum.

On the second floor of the wing are the anatomical laboratories. In the centre, and occupying a large part of the floor space, is the main dissecting hall, which has a cement floor and is lighted by six large windows and two skylights. On either side of a short corridor at the front are two private laboratories for special dissections, and at the end of the corridor the two laboratories for the instructors. The latter are entered from the upper hall of the main building. In the rear of the main dissecting hall are the lavatory and locker rooms.

The basement of the wing is divided by a solid brick wall from east to west. On the north of this wall are the store rooms, a photographic room, a room for the refrigerating and gas plants; on the south side are the storage tanks for cadavers, the incinerator, and other arrangements for the care of anatomical material. In the rear end of the basement is an

entrance hall containing the elevator and the stairs leading to the amphitheatre and the dissecting hall. The building is heated from the central heating plant and abundantly supplied with water and electric light. The dissecting hall is supplied with hot and cold water.

The laboratories are well equipped with apparatus for the use of the students and the research work of the teachers. Animals are available in adequate numbers for all proper experimental work.

The Departmental Library contains approximately three thousand volumes. The more important periodicals pertaining especially to the subjects offered in the course are received regularly and kept on file.

The medical students have free access to the general Library, the Chemical, Physical, and Biological laboratories, which are described in Part Five of the general catalogue.

COURSES OF INSTRUCTION

Chemistry

1. General Descriptive Chemistry: Premedical: the elements are studied in a systematic manner; the laws governing their combination and the compounds resulting are considered with appropriate reference to their occurrence and relationships to medicine. The latter part of the course is taken up with organic chemistry. Texts: McPherson's *Elementary Chemistry*; Remsen's *Organic Chemistry*. Both terms, three hours. Professor HERTY, Associate Professor HALL, and Mr. BRYAN.

Laboratory fee, \$1.25 a term.

- 3A. Qualitative Analysis: Premedical: laboratory work with lectures; practice is given in the analysis of known and unknown mixtures. Text: Venable and Wheeler's *Qualitative Chemical Analysis*, and the professor's notes. Required. Fall term, three hours.. Associate Professor WHEELER and Mr. HOKE.

Laboratory fee, \$7.50.

- 4A. Quantitative Analysis: Premedical: a brief course in gravimetric methods followed by a more extended

course in volumetric methods. Laboratory notes. Required. *Spring term, two hours.* Associate Professor BELL.

Laboratory fee, \$4.00.

5. Organic Chemistry: lectures and laboratory work. Prerequisite, Chemistry 1 and 3. Elective. *Both terms, three hours.* Associate Professor WHEELER.

Laboratory fee, \$4.00 a term.

- 5A. Organic Chemistry: laboratory work only. This course is designed to give further practice in dealing with organic compounds. The student chooses the general line of work he desires to pursue. Elective. Prerequisite, Chemistry 5 or 10. *Both terms, two hours.* Associate Professor WHEELER.

Laboratory fee, \$6.00 a term.

9. Toxicology (First Medical): laboratory work; the chemical behavior of poisons and their separation is studied in the laboratory. Text: Autenrieth and Warren's *Detection of Poisons*. Required. *Spring term after April 1, three hours.* Associate Professor WHEELER.

Laboratory fee, \$1.50.

10. Organic Chemistry (First-Medical): lectures and laboratory work. Pure organic chemistry will be treated in the lectures with special stress upon those phases (*e. g.*, Proteins, Carbohydrates, etc.) which will pave the way to the study of physiological chemistry. The laboratory work will be devoted to a study of organic reactions in general and to the synthesis of organic compounds. Required. *Fall term, three hours; spring term, three hours until April 1.* Associate Professor WHEELER.

Laboratory fee, \$5.00 a term, including Chemistry 9.

Physics

- A. Elementary Physics: the fundamental facts of Physics are studied with some special attention to heat and electricity. Text-book, lectures, and laboratory work. *Both terms, three hours.* Mr. CHRISLER.

Certificates of Physics work done elsewhere than in a college of approved standing will not be accepted in lieu of this course.

4. Electricity and Magnetism: a study of the phenomena of electricity and magnetism, and their application in modern life, including the use of the X-rays, the rays of Radium and other applications in Electrotherapeutics. Laboratory work required. Elective. *Both terms, two hours.* Professor PATTERSON.

Zoology

1. General Zoology; premedical; an introductory course giving an outline of the classification and structure of animals, with consideration of the fundamentals of histology, embryology, and physiology, and some consideration of biological theories; lectures with laboratory work. Text: Parker. Professor WILSON and Mr. GEORGE.

Laboratory fee, \$3.00 a term.

2. Comparative Anatomy of Vertebrates (first half); medical; dissection of vertebrate types; ascidian, amphioxus, cyclostome, selachian, teleost, reptiles, bird, mammal. Text: Thomson. Professor WILSON and Mr. TURLINGTON.

Laboratory fee, \$5.00.

Botany

1. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. Elective in the first year. Professor COKER.

Histology

1. General Histology and Organology. This course includes (a) the study of the fundamental tissues followed by (b) the study of the microscopic structure of the various organs, and (c) the fundamentals of histological technique. Fall term. Lectures, recitations, and laboratory. *Nine hours a week.* Professor BROWN, Messrs. SPEIGHT and WILKERSON.
2. Advanced Histology: To those who have completed course 1 or its equivalent, opportunity will be offered to pursue advanced work or original investiga-

tion in this subject. Arrangements for this course may be made with Professor BROWN..

Course 1 is required of all medical students. Course 2 is elective.

Anatomy

Professor MANGUM, Associate Professor LAWSON, and Mr. SAUNDERS.

The method of instruction is one of dissection and demonstration supplemented by lectures. Each student is required to dissect one-half of the body under the constant supervision of an instructor, who examines him daily upon the work done. Frequent practical examinations are held upon which stress is laid in order to enforce proper study of the cadaver.

1. In the First Year the lectures and demonstrations proceed by systems. The bones, the articulations, the descriptive anatomy and relations of the viscera are demonstrated to each student. During this year the student dissects one-fourth of the body.
2. In the Second Year the student finishes the dissection of the body and especial stress is laid upon topographical anatomy and the relations of anatomy to surgery. A final examination is held upon the entire subject of gross anatomy.
3. Neuro-Anatomy: special laboratory study of the gross and microscopic anatomy of the cord and encephalon. Text: Cunningham, Gray, or Morris; Cunningham's *Manual of Practical Anatomy*; Whitehead's *Anatomy of the Brain*.
4. Vertebrate Embryology: The lectures embrace the phenomena of cell division, ovulation, and impregnation, and the development of the human body to the end of the foetal stage. In the laboratory the student verifies the facts by the study of organogeny in the chick and in the pig and the foetal membranes in mammals. Texts: Bailey and Miller; Marshall; Minot's *Laboratory Text*.

Physiology

Professor MANNING and Mr. VENABLE.

The course in Physiology is given in three parts, as follows:

1. General Physiology: a lecture course of five hours a week extending through the year; a brief account of cell physiology is followed by a detailed discussion of the facts and theories of Human Physiology; attention is called to the application of physiology in medical practice as far as possible. Text: Howell.
2. Physiological Chemistry: a laboratory course of six hours a week during the fall term. The purely chemical aspects of Bio-chemistry are considered in the course in organic chemistry (Chem. 10) given in the first year. In the course in Physiological Chemistry a practical application of the principles of Bio-chemistry is made in the study of Human Physiology. The chemistry of digestion, of the secretions, of blood, and of the urine is studied in detail, qualitatively and quantitatively, and such tissues are examined as will afford evidence of the course of metabolic processes. Laboratory Notes. References: Hammarsten, Hawk.
3. Experimental Physiology: a laboratory course of five hours a week during the spring term. In this course the student studies the heart and neuro-muscular systems on the turtle and the frog; the circulatory, respiratory, and glandular systems on the mammal. In the former the class is divided into groups of two and in the latter into groups of four. Each group is supplied with mimeographed directions for the performance of each experiment and a full equipment of apparatus, and each student is required to keep a record of the observations, including tracings. Reference: Stewart, Porter, Hill, etc.

Materia Medica and Pharmacology

Professor MACNIDER.

1. Materia Medica: the general consideration of this subject is given in the first year of the medical curriculum.

In the second year the important drugs are studied in groups, the classification depending upon their physiological action. Emphasis is given to the most important drugs, and their physiological action is studied in detail.

2. Prescription Writing: as early as possible in the course the student's attention is directed to the logical application of various drugs to the relief of morbid conditions. Hypothetical conditions are discussed, and each student writes one or more prescriptions and gives his reasons for the use of the various drugs he employs. The prescriptions are discussed and criticised by the students and the instructor.
3. Pharmacodynamics: this part of the general course in Pharmacology consists in a careful and accurate study of the action of practically all of the more important drugs on the lower animals. For this work, the higher animals, such as the cat and dog, are chiefly used. The class is divided into groups of two or four, and the experimental work is conducted by the students. Each student is required to hand in to the instructor, at the completion of the course, a laboratory note book containing a detailed account of each experiment, an explanation of the results obtained, and the tracings made during the experiments. Oral and written recitations are frequently held. Text: Wilcox. *Pharmacology and Therapeutics*. Reference: Sollman, Cushny and Wood.
4. Advanced Pharmacology: two types of courses will be offered: (a) an experimental study of the action of various drugs upon the normal animal; (b) an experimental study of the action of various drugs and other agents upon the pathological animal.

Bacteriology

Professor MACNIDER and Mr. SLOAN.

The student learns by practical experience the methods of cultivating, staining, and identifying the principal patho-

genic bacteria. A few non-pathogenic and saprophytic forms are studied. The pathological significance of the various forms is explained by lectures, and the pathogenicity of some of the forms is determined by inoculation experiments performed by the class. At intervals during the course unknown organisms are given for identification. In addition to this, each student is required to isolate from the air, water, fecal matter, or pus two organisms and determine their species. The latter part of the course is devoted to the bacteriological study of milk and water. Text: Jordan. Reference: Park and McFarland.

Minor Surgery and Physical Diagnosis

Associate Professor LAWSON.

The class practices the application of bandages, and learns the modern method of dressing wounds. A short course in Physical Diagnosis is given. Text: Davis on Bandaging.

Pharmacy

Professor HOWELL.

The course in Pharmacy will consist in laboratory work supplemented by lectures. The student will have an opportunity to study the crude drugs and their official prescriptions and doses, and to familiarize himself with pharmaceutical methods in the preparation of official drugs, in writing and compounding prescriptions.

Hygiene

Professor MANNING.

A short course in the elementary principles of Hygiene and Sanitation.

Pathology

Professor BROWN, Messrs. SPEIGHT and WILKERSON.

1. General and Special Pathology: this course embraces a thorough consideration of general pathological processes from their chemical and physiological as well as

their morphological aspects. The subject of Special Pathology is considered upon the same broad basis. The course includes a series of lectures and recitations combined with laboratory work and demonstrations of gross and microscopical preparations. Second term. Lectures and recitations, *four hours a week*; laboratory, *nine hours a week*. Prerequisite, Histology 1.

2. Advanced Pathology: opportunity for advanced work in pathology or for original investigation will be offered to a limited number of students upon the presentation of satisfactory evidence of ability to pursue work of this character.

Course 1 is required of all medical students. Course 2 may be elected by special arrangement with Professor BROWN.

SCHEDULE OF RECITATIONS

		FIRST YEAR						SECOND YEAR					
HOOR	TERM	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	Fall	Histology	Histology	Histology	Histology	Histology	Histology	Anatomy 2	Anatomy 3	Anatomy 3	Anatomy 2	Anatomy 2	Anatomy 3
	8:30							Pharma-cology	Pharma-cology	Pharma-cology	Pharma-cology	Pharma-cology	Pathology
	Spring	Embryology	Anatomy		Anatomy	Embryology	Anatomy	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3
	Fall	Histology	Histology	Histology	Histology	Histology	Histology	Physiology	Physiology	Physiology	Physiology	Physiology	Pathology
	9:45							Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3
	Spring	Embryology	Anatomy	Pharmacy	Anatomy	Embryology	Anatomy	Physiology	Physiology	Physiology	Physiology	Physiology	Pathology
	Fall		Histology		Histology	Chem. 10	Histology	Anatomy 2	Bacteriology	Anatomy 2	Bacteriology	Anatomy 2	Bacteriology
	10:40							Pharma-cology	Pathology	Pathology	Pathology	Physiology	Pathology
	Spring	Anatomy	Anatomy	Anatomy	Anatomy	Chem. 10	Anatomy		Pathology	Bacteriology			Bacteriology
	Fall							Pharma-cology	Pathology	Pathology	Pathology	Physiology	Pathology
	11:35							Pharma-cology	Pathology	Pathology	Pathology	Physiology	Pathology
	Spring	Anatomy	Anatomy	Anatomy	Anatomy	Chem. 10	Anatomy	Physiology	Physiology	Physiology	Physiology	Physiology	
	Fall	Anatomy	Anatomy	Anatomy	Anatomy			Pharma-cology	Pathology	Pathology	Pathology	Physiology	
	12:30							Pharma-cology	Pathology	Pathology	Pathology	Physiology	
	Spring		Anatomy		Anatomy		Anatomy	Physiology	Physiology	Physiology	Physiology	Physiology	
	Fall	Chem. 10	Zoology 2	Chem. 10	Zoology 2	Zoology 2		Physiology	Bacteriology	Physiology	Bacteriology	Physiology	
	2:30							Pharma-cology	Pathology	Pathology	Pathology	Physiology	
	4:30							Pharma-cology	Pathology	Pathology	Pathology	Physiology	
	Spring	Chem. 10	Pharmacy	Chem. 10	Pharmacy			Pharma-cology	Ph. Diagnosis	Ph. Diagnosis	Ph. Diagnosis	Physiology	

SCHOOL OF PHARMACY

FACULTY

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., PRESIDENT.
EDWARD VERNON HOWELL, A. B., Ph. G., DEAN.

EDWARD VERNON HOWELL, A. B., Ph. G., *Professor of Pharmacy.*

JOHN GROVER BEARD, Ph. G., *Instructor in Pharmacy.*

HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*

WILLIAM DEBERNIERE MACNIDER, M. D., *Professor of Pharmacology.*

ISAAC HALL MANNING, M. D., *Professor of Physiology.*

CHARLES HOLMES HERTY, Ph. D., *Smith Professor of General and Industrial Chemistry.*

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*

ALVIN SAWYER WHEELER, Ph. D., *Associate Professor of Organic Chemistry.*

JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*

ROBERT ANDERSON HALL, Ph. D., *Associate Professor of General Chemistry.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

WILLIAM BATTLE COBB, *Assistant in Botany.*

PAUL ROBY BRYAN, *Assistant in Chemistry.*

CARNIE BLAKE CARTER, *Assistant in Chemistry.*

CLARENCE BALLEW HOKE, *Assistant in Chemistry.*

FLEMING ROSS WEAVER, *Assistant in Chemistry.*

CALEB KNIGHT BURGESS, *Assistant in Physics.*

LEE FRANKLIN TURLINGTON, A. B., *Assistant in Zoology.*

WESLEY CRITZ GEORGE, A. B., *Assistant in Zoology.*

FOUNDATION

The School of Pharmacy was founded in 1897 and was opened for students in September of that year. Its location at the seat of the University assures to the students the most modern scientific instruction with all the laboratory facilities of the undergraduate department, as well as the courses of instruction in the allied branches. These opportunities will meet the requirements of a large number of students who were compelled heretofore to obtain their pharmaceutical education in other states. Briefly stated, the advantages are as follows:

1. Thorough, careful, *individual* training.
2. The practical experience derived from active work in the laboratories.
3. Intimate association with the other departments of the University, to all of which the student of pharmacy has access, and the daily contact with students pursuing various branches of learning.
4. The use of the large library and reading room and the well equipped gymnasium.
5. The comparatively small cost at which a two years' course may be obtained.
6. The length of the course, which consists of two sessions of nine months each,—nearly a fourth longer than in many of the colleges of pharmacy.

The success of the students of this school in their examinations before the State boards has been very gratifying. Students of this School have been applicants before the State boards of Maryland, Pennsylvania, and North Carolina. None of the graduates of this School applying for license before the State boards has failed to pass the examination.

ADMISSION

Candidates for admission into the School of Pharmacy should present themselves on the same days and at the same hours with candidates for admission into the college. For the next academic year these days will be *Monday, Tuesday, or Wednesday, September 9, 10, or 11, 1912, and Thursday or*

Friday, January 2 or 3, 1913. The session of the School of Pharmacy is of the same length as the College year, beginning *September 12, 1912*, and ending *June 3, 1913.*

Candidates for the degree of Ph. G. must be, on entering, at least 17 years old, and must have completed a high school course of study.

The members of the School of Pharmacy enjoy all the privileges extended to other students in the University.

EXPENSES

The charges for each term are payable at the beginning of the term. They are as follows:

Tuition	\$30.00
Registration and incidental fees.....	12.50

There are additional fees as follows:

FIRST YEAR.

Chemistry 1 (each term).....	\$1.25
Physics A (each term).....	.50

SECOND YEAR.

Chemistry 3 (each term).....	\$ 5.00
Chemistry 10 (spring term).....	5.00
Prescription Course.....	10.00

The students of Pharmacy are entitled to the use of the gymnasium, the library, and reading room, and, in case of sickness, to medical attention and the use of the infirmary.

Good board is furnished at Commons Hall for \$10.00 a month and at the University Inn for \$15.00 a month. The rent of unfurnished rooms ranges from 75 cents to \$2.75 a month. For each room is made a charge of \$2.00 a month for electric light and heating.

PRIZES

THE BRADHAM PRIZE, offered by Mr. C. D. Bradham, of New Bern, N. C., will be given to the student making the highest general average during the two years of study.

THE GILPIN LANGDON PRIZE, offered by Messrs. Gilpin Langdon & Co., of Baltimore, Md., will be given to the student

making the best line of preparations in the pharmaceutical laboratory.

Prizes will also be given:

1. For the best thesis.
2. For the best collection of native medicinal herbs.
3. For the best exhibit of chemical salts made by a second year student.
4. For the best work in the recognition of materia medica specimens.
5. To the student recognizing the largest number of pharmaceutical preparations.
6. To the student making the best general average during the first year of study.

EXAMINATIONS

Final examinations are held at the end of each term on the subjects embraced in the course.

Quizzes upon the different branches are held regularly. Specimen quizzes upon Materia Medica, Chemistry, and Pharmacy are held once a week, and consist in the recognition and correct writing of the official names of the specimens presented.

Students are required to make an average of 70 per cent. on all examinations and quizzes.

COURSES LEADING TO THE DEGREE OF GRADUATE OF PHARMACY

In order to be recommended for the degree of Graduate of Pharmacy (Ph. G.) the student must have completed with credit the course of study outlined below. The course extends over two sessions of nine months each. The student must have completed the work of both sessions in the School of Pharmacy of this University, or of one session (the second) here after one in some other recognized school of Pharmacy. He must obtain satisfactory marking in attendance, making a general average of 70 per cent. in the various branches, and submit a satisfactory thesis. The thesis must be an original essay embodying the results of the student's personal research in some branch of Pharmacy, which he has prosecuted under the direction of the professor who assigned him the subject.

The subject of such thesis must be announced on or before February 1 to the Dean of the Faculty. On May 2 the thesis shall be read before the Dean of the School, subject to criticism and correction. The corrected and approved thesis must be handed to the Registrar in typewritten form on or before May 15. It will be published at the discretion of the Dean of the School. He must also have had a practical experience of at least four years with some qualified pharmacist in a dispensing store. Satisfactory evidence on this point must be submitted to the Dean of the School, and a certificate deposited with the Registrar on or before May 15. Students who have not had the full four years' experience will be permitted to stand examinations for graduation; but their diplomas will be withheld until they shall have satisfied this requirement. Of the three years of experience required for license by the State Board of Pharmacy, the work done in the Pharmaceutical laboratory will count for one and only one.

FIRST YEAR.

Pharmacy 1 (5)
Pharmacy 4 (4)
Elementary Physics A (2)
Chemistry 1 (3)

SECOND YEAR.

Pharmacy 2 (5)
Pharmacy 5 (8)
Materia Medica (5)
Materia Medica and Pharmacology (5)
Chemistry 3 (2)
Chemistry 10, spring term (3)

COURSES OF INSTRUCTION

Pharmacy

1. Theory and Practice of Pharmacy. This course consists of lectures upon the following subjects, with practical demonstrations and the employment of proper apparatus whenever necessary: metrology, comminution, heat evaporation, distillation, sublimation; fusion, cal-

cination, granulation, oxidation, reduction, etc.; solution of solid liquids, and gases; deliquescence, efflorescence, etc.; colation, filtration, decolorization, clarification, precipitation, etc.; macration, expression, infusion, decoction, etc.; percolation, and study of the following: waters, syrups, honeys, glycerites, mucilages, mixtures, spirits, elixirs, liniments, collodians, tinctures, wines, vinegars, and fluid extracts. Text: Remington, *Theory and Practice of Pharmacy*. First year. *Both terms, five hours*. Professor HOWELL.

2. Theory and Practice of Pharmacy: The official forms and preparations of drugs are taken up in detail. Beginning with the inorganic compounds, the salts are considered with regard to their commercial qualities and pharmaceutical uses and preparations. The organic compounds are studied, commencing with the salts of the organic acids and passing to the natural and organic compounds. Second year. *Both terms, five hours*. Professor HOWELL.
3. Lectures on Pharmaceutical Botany: This course is preparatory to the study of Materia Medica, and takes up the study of the flower, the various topics of fruits, seeds, etc., and a careful study of the descriptive terms as applied to leaves, stems, and roots. Instruction is given in the gathering and proper mounting of specimens of the official herbs that grow in this vicinity. First year. *Spring term, two hours*. Professor HOWELL.
4. Operative Pharmacy: a practical course with laboratory work. First year. *Both terms, four hours*. Professor HOWELL and Mr. BEARD.
5. Operative Pharmacy: a continuation of course 4. Second year. *Both terms, two hours*. Professor HOWELL and Mr. BEARD.

Materia Medica and Pharmacology

1. Materia Medica: lectures on the geographical and botanical sources of drugs; descriptions and uses of the

same, together with their preparation and doses. Opportunity is given the student to familiarize himself with most of the crude drugs and their preparations. Text: White and Wilcox. *Fall term, three hours.* Professor HOWELL and Mr. BEARD.

2. **Materia Medica and Pharmacology:** This course is devoted to the study of the origin and constitution of remedial measures, their preparation and doses; and in particular, their physiological action and the indications for their rational use. Opportunity will be given to students to familiarize themselves with the more important crude drugs and their preparations. Instruction is given by means of lectures, recitations, and demonstrations. The lectures intended to accompany the work in Toxicology are given as a part of the course in Materia Medica. Professor MACNIDER.

Physics

Elementary Physics (Physics A): the fundamental facts of Physics are studied with some special reference to heat and electricity. Text-book, lectures, and laboratory work. First year. *Both terms, three hours.* Mr. CHRISLER.

Certificates of Physics work done elsewhere than in a college of approved standing will not be accepted in lieu of this course.

Chemistry

1. **General Descriptive Chemistry:** the elements are studied in a systematic manner; the laws governing their combination, and the compounds resulting, are considered with appropriate reference to their occurrence and relationships to medicine. The latter part of the course is taken up with organic chemistry. Texts: McPherson and Henderson's *Elementary Study of Chemistry*, and Remsen's *Organic Chemistry*, supplemented by lectures and quizzes. First year. *Both terms; lectures, three hours; laboratory, two hours (fall term).* Professor HERTY, Associate Professor HALL, and Mr. BRYAN.

3. **Qualitative Analysis:** laboratory work with lectures; the behavior of the elements and their compounds is studied in the laboratory. Practice is given in the analysis of known and unknown mixtures with special reference to the detection of poisons and determination of the purity of drugs. Text: Venable and Wheeler's *Qualitative Chemical Analysis* and the instructor's notes. Second year. *Both terms, two hours.* Associate Professor WHEELER and Mr. HOKE.
10. **Organic Chemistry and Toxicology:** practice is given in the preparation of organic compounds and the detection of poisons and the determination of the purity of drugs. *Spring term, three hours.* Associate Professor WHEELER.

Laboratory fee, \$5.00.

OPTIONAL COURSES

The following courses are not required of students in Pharmacy, but may be elected profitably.

Elementary Physiology

The study of Physiology is begun in the spring term of the first year, during which the physiology of digestion, the digestive glands, blood, respiration, metabolism, excretion, and animal heat are considered in lectures illustrated by experiments. The study is continued in the fall term of the second year by consideration of the physiology of the muscles and of the nervous system. During this term also the student learns the methods of experimental physiology by means of class work in the laboratory. Texts: *American Text Book*, Stewart, or Kirke. *Both terms, three hours.* Professor MACNIDER.

Zoology

General Zoology: an introductory course giving an outline of the classification and structure of animals, with consideration of the fundamentals of histology, embryology, and physiology, with some consideration of biological theories; lectures with laboratory work. Text: Hertwig. *Both terms, two hours.* Professor WILSON.

Botany

General Introduction to Systematic Botany: with special attention to medical plants; laboratory and field work with recitations. *Spring term, three hours.* Professor COKER.

Chemistry

Industrial Chemistry: lectures; the application of chemistry to the arts and industries. This course includes metallurgy, glass making, pottery, (*fall term*); food, clothing, building materials, explosives, photography, etc., (*spring term*). *Both terms, three hours.* Professor HERTY.

Agricultural Chemistry: lectures. This course includes the chemistry of the plant and the soil, and the discussion of plant food, etc. Many specimens have been collected in the Industrial Museum to illustrate this course and the preceding one. Professor HERTY.

Quantitative Analysis and Assaying: laboratory work. This course is intended to give the student a thorough grounding in analytical methods and manipulations. *Three hours.* Professor HERTY.

Quantitative Analysis: laboratory work. The student in this course is led further into the study and practice of analytical methods. The work may take any special direction desired by him, fitting him to be an agricultural chemist, iron chemist, manufacturing chemist, physician, druggist, or teacher of chemistry. Encouragement is given to the student to make original researches. *Five hours.* Professor HERTY.

Determinative Mineralogy: lectures with laboratory work. Dana's *Text-Book of Mineralogy*. *Both terms, two hours.* Mr. FRY.

Bacteriology

The student learns by practical experience the methods of cultivating, staining, and identifying the principal bacteria, and their pathological significance is explained by lec-

tures and demonstrations by inoculation of animals. In this way the chief pathogenic bacteria are studied in pure culture on the various media, after which the methods of obtaining pure culture from mixtures of bacteria are learned. The necessary manipulations are carried out by the students, who thus obtain a practical knowledge of the subject which can be gained in no other way. *Fall term, six hours.* Professor MACNIDER.

Students in Pharmacy have also the privilege of attending any of the regular academic courses.

PHARMACEUTICAL LABORATORY

OFFICERS.

EDWARD VERNON HOWELL, A. B., Ph. G., DIRECTOR and *Professor of Pharmacy.*

JOHN GROVER BEARD, Ph. G., *Instructor in the Pharmaceutical Laboratory.*

The rooms of the Pharmaceutical Laboratory are admirably adapted to this purpose. They are conveniently situated on the first floor, are well lighted, and well equipped with water, electric lights, and gas. To each student is assigned a desk, provided with lock and key, and containing all the apparatus necessary for the every day work of the pharmacist. In the store room is kept a supply of materials for practical work, as well as the apparatus for the more complex operations. Ample space is provided for the work at the prescription counter, where practical instruction in the compounding and dispensing of prescriptions is given.

A small deposit fee is required to cover the cost of breakage of apparatus. At the end of the session this fee will be returned, less the amount of breakage.

The Pharmacy Department of the University desires to make acknowledgement to the following manufacturers for contributions of various pharmaceuticals and chemicals to be used for display and demonstration work. In order that these exhibits may be properly displayed to the students, a room has been set apart in the Pharmacy building, equipped with suit-

able cabinets, and in these the specimens are to be kept on permanent exhibition. The contributors are: Fairchild Bros. & Foster, of New York; Hoffman-LaRoche Chemical Works, of New York; H. K. Mulford Company, of Philadelphia; Merck & Company, of New York; Mallinckrodt Chemical Works, of St. Louis; Charles Pfizer & Company, of New York; Powers-Weightman-Rosengarten Company, of Philadelphia; E. R. Squibb & Son, of New York; Sharp & Dohme, of Baltimore; Seabury & Johnson, of New York; Smith, Kline & French Company, of Philadelphia; William R. Warner & Company, of Philadelphia; Eli Lilly & Company, of Indianapolis; Whitall, Tatum & Company, of New York.

OTHER LABORATORIES

The laboratories of Physics, Chemistry, and Biology are open to students in Pharmacy. These laboratories are all equipped with the most approved apparatus for experimentation and illustration.

READING ROOM AND LIBRARY

The School of Pharmacy is provided with a well selected library and with a reading room, inaugurated by the class of 1897, in which are filed a large number of medical and pharmaceutical journals.

In addition to these advantages, students of this department enjoy the privileges of the University reading room, in which are filed all the leading newspapers and magazines, and free access to the University Library, which numbers sixty thousand volumes and seventeen thousand pamphlets.

THE SUMMER SCHOOL

FACULTY

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., **PRESIDENT.**

NATHAN WILSON WALKER, A. B., **Director of the Summer School, Professor of Secondary Education.**

GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*

NATHAN WILSON WALKER, A. B., *Professor of Secondary Education.*

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *Alumni Professor of History.*

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

THOMAS P. HARRISON, Ph. D., *Professor of English in the North Carolina College of Agricultural and Mechanic Arts.*

JAMES M. DOUGLAS, Ph. D., *Professor of Physics in Davidson College.*

LOUIS ROUND WILSON, Ph. D., *Associate Professor of Library Administration.*

GEORGE MCFARLAND MCKIE, A. M., *Associate Professor of Public Speaking.*

ADOLPHE VERMONT, A. M., *Instructor in the Romance Languages.*

THEOPHILUS RANDOLPH EAGLES, JR., A. B., *Instructor in Mathematics.*

GEORGE THADDEUS WHITLEY, A. M., *Superintendent of Clayton Graded School.*

MARY O. GRAHAM, *Supervising Teacher in the N. C. State Normal and Industrial College.*

MARY GOODWIN GRIGGS, *Instructor in Drawing for the Prang Educational Co. of New York City.*

EMMA OWENS, *Supervisor of Drawing in the City Schools of Chattanooga, Tenn.*

GENERAL INFORMATION

THE SUMMER TERM

The University Summer School for Teachers will open early in June, and continue for a term of six weeks. (The exact dates will be given in the Special Summer School Announcement.) The School will be in session six days each week or thirty-six working days.

REGISTRATION

All students of the Summer School are urged to be present and register the day before regular class work begins. There are certain preliminary arrangements necessary to be made in the way of selecting courses, securing board and lodging, and getting books, which should be attended to before class work begins. It is much better to be on hand promptly so as to begin with the class than to come in a day or two late.

COURSES OF INSTRUCTION

During the summer term of 1912 instruction will be offered in the following subjects: English, Mathematics, History, Latin, German, French, Physics, Educational Psychology, Secondary Education, Primary School Methods, Drawing and Library Administration. These courses are designed to meet the needs of the teachers who are striving to fit themselves for better service. The instruction is of the same high character as that of the regular term of the University. There are no fads, frills, shams, or pretenses about it. To the earnest teacher or student who desires to spend a part of his summer in serious, quiet study under the direction of competent instructors, splendid opportunities are offered.

THOSE WHO MAY BE BENEFITED

Among those who may be benefited by the Summer School may be mentioned the following classes:

1. Teachers in high schools, and those intending to teach, who desire better general training for their work.
2. Teachers who desire special training in any branches offered. The work will be so graded and arranged that a student can make considerable progress by attending two or three summers in succession.
3. Teachers in elementary schools, or those preparing to teach, who wish to improve their general scholarship, or who wish to study the methods used with primary classes in our best schools.
4. Prospective students of the University who wish to make up deficiencies in their entrance requirements.
5. Teachers who expect to take the State examination in July for either the High School Teacher's Certificate or the Five-Year State Certificate.

INCREASING DEMAND FOR HIGH SCHOOL TEACHERS

The growth of public high schools in North Carolina causes an increasing demand for well-equipped high school teachers and principals. During the past two years the University has had calls for over two hundred men to engage in educational work in this and other Southern States. It has been able to supply barely one-half of that number. The demand for better trained teachers is becoming more and more insistent all over the South, and it means greater opportunity for the teacher who is preparing himself to fill a higher position next year than he filled last. To be able to advance in his profession to ever larger fields of usefulness should be the ambition and constant aim of every true teacher. The University is maintaining the Summer School in order that it may better serve the schools by sending into them more efficient teachers, and that it may better serve the teachers by giving them opportunity to improve their scholarship and thus fit themselves for better work.

EXAMINATIONS AND CERTIFICATES

At the close of the term regular examinations will be held, and certificates will be issued upon the satisfactory completion of all courses.

The teachers in the Summer School who wish to apply to the State Board of Examiners for the High School Teacher's Certificate and the Five-Year State Certificate will have an opportunity to review thoroughly the main subjects on which they are to be examined, and then to take the examinations at a time when they should be best able to pass them successfully. Teachers who take either of these examinations may be excused from the regular examinations at the close of the term mentioned in the paragraph above. The State examinations will be held in July.

THE LIBRARY

The University Library, containing over 55,000 volumes and over 17,000 pamphlets, will be open daily to the students of the Summer School. Excellent opportunities are here afforded the students for wide reading and special research.

THE GYMNASIUM

All male students of the Summer School will be afforded the privileges of the swimming pool in the gymnasium free of cost.

BOARD AND LODGING

This year Commons Hall will be open to students of the Summer School. Good table board here will cost \$10 a month, payable in advance.

In order to provide adequate dormitory accommodations for students of the Summer School, the University will this year open the Carr Building for the ladies in attendance. Room rent, including light and shower baths, will be \$2 per student (two to the room) for the term of six weeks, payable in advance. No reduction from this price can be made for students entering late or for those leaving before the close of the term. This building will be in charge of a competent matron during the Summer School.

University Inn will also be open at the same price to ladies attending the Summer School.

Students desiring room in either of these buildings will be expected to furnish their own bed linen and towels. Those expecting to attend the Summer School had better write the Director and have their rooms reserved in advance.

Good board and lodging can be obtained at the village boarding houses at reasonable rates, varying from \$15 to \$22.50 per month.

FEES

No tuition fees will be charged teachers or those who are preparing themselves for teaching, but a registration fee of \$3 will be required of all students of the Summer School.

BOOKS AND MATERIALS

Students of the Summer School will be expected to provide themselves with all books and materials required for their individual use in the courses pursued. The texts to be used in the several courses are announced elsewhere in this bulletin. Students may procure their books before coming to the Summer School, or they may get them here at the Chapel Hill bookstores at the regular market prices. Materials for the courses in Drawing will be furnished by the University, and for these materials a fee of \$2 will be charged.

CLASS ROOMS

The classes in English will meet in the English Room, *Old East Building*; the class in Library Administration will meet in the Reading Room, *Library Building*; all others, unless otherwise announced, will meet in *Alumni Hall*, rooms on second floor.

CHAPEL EXERCISES

Chapel exercises will be conducted in Gerrard Hall each morning. All Summer School students are expected to attend.

ANNOUNCEMENT OF COURSES

ENGLISH

Professor HARRISON and Associate Professor McKIE.

1. Grammar and Composition. A review of the principles of grammar and a discussion of the more difficult problems will be followed by a practical course in composition. Text-books: Buehler's *A Modern English Grammar*. Any standard work on composition. *Six hours a week.*
2. High School Literature. The works indicated for "study and practice" in the college entrance requirements will form the basis of the course. Parallel reading will be directed in the works indicated for "reading and practice." *Six hours a week.*
3. Nineteenth Century Literature. The main currents in the literature of England during the nineteenth century will be traced, and readings will be conducted in the selected works of three or four representative writers. *Three hours a week.*

HISTORY

Professor HAMILTON.

1. The History of England. Lectures and assigned readings. Text-book: Walker's *Essentials in English History*. *Six hours a week.*
2. The History of the United States to the close of Reconstruction. Lectures and assigned readings. Text-book: Hart's *Essentials in American History*. *Six hours a week.*

LATIN

Professor HOWE.

1. Elementary Course. Pronunciation, inflection, syntax of cases and verbs; special study of the subjunctive, indirect discourse, relative and conditional sentences;

reading of Cæsar's Gallic War. Text-book: Bennett's *Latin Grammar*. Any standard text of Cæsar. *Six hours a week.*

2. Course in Vergil's *Æneid*, I-VI. Translation and syntax. Text-book: Any standard text of Vergil's *Æneid*. *Six hours a week.*
3. Course in Cicero's Orations against Catiline. Translation and syntax. Any standard text of the Orations against Catiline. *Three hours a week.*
4. Latin Composition. *Three hours a week.*

GERMAN

Mr. VERMONT.

1. Elementary Course. Grammar. Written exercises. Dictation. Translation. Text-books: Thomas' *German Grammar*; Mosher's *Willkommen in Deutschland*. *Six hours a week.*
2. Advanced Course. Review of Grammar. Composition. Translation. Text-books: Thomas' *German Grammar*; Wesselhoeft's *German Exercises*; Freytag's *Die Journalisten*. *Six hours a week.*

FRENCH

Mr. VERMONT.

1. Elementary Course. Grammar; careful attention to pronunciation; oral and written exercises; translation and reading at sight. Text-books: Lazzar's *Lectures Faciles*; Fraser and Squair's *French Grammar*. *Six hours a week.*
2. Advanced Course. Rapid review of grammar; reading of modern French authors, studies in reading and writing French, and in pronunciation. *Six hours a week.*

MATHEMATICS

Professor STACY.

1. Secondary Algebra. Lectures and assigned work embracing the introductory chapters and including Factoring, Simultaneous Equations, Exponents, Involution and

Evolution, Quadratic Equations, etc. Text-book: Fisher and Schwatt's *Secondary Algebra*. *Six hours a week.*

2. Plane Geometry. Lectures and assigned work. Text-book: Wells' *Essentials of Plane and Solid Geometry*. *Six hours a week.*
3. Solid Geometry. Lectures and assigned work. Special attention given to the selection of original exercises. Text-book: Wells' *Essentials of Plane and Solid Geometry*. *Six hours a week.*

Mr. WHITLEY.

4. Arithmetic. A review of the principles of arithmetic. Text-book: Colaw and Ellwood's *Advanced Arithmetic*. *Six hours a week.*

PHYSICS

Professor DOUGLAS.

1. Elementary Course. Mechanics of solids, liquids, and gases. Sound. *Six hours a week.*
 2. Elementary Course. Magnetism and electricity. Heat and light. Text-book: Millikan and Gale's *A First Course in Physics*. *Six hours a week.*
- Courses 1 and 2 may be taken together.

SECONDARY EDUCATION

Professor WALKER.

1. High School Organization and Administration. (For high school teachers and principals.) Lectures and assigned work. *Three hours a week.*

Professor CHASE.

2. The Principles of Secondary Education. (For high school teachers and principals.) Lectures and assigned work. Brown's *The American High School* will constitute the basis of this course. *Three hours a week.*

EDUCATIONAL PSYCHOLOGY

Professor CHASE.

Educational Psychology. Modern psychological principles and their application to education. Lectures and readings. *Six hours a week.*

ELEMENTARY SCHOOL METHODS

Miss GRAHAM.

1. Model Lessons for Beginners. Model Class work, lectures, and assigned reading. Work with children just beginning school. A class of primary grade children will be organized for the purposes of this course. Lessons in phonics, reading, language work, numbers, nature study, etc., etc., covering the general work of the first grade. *Six hours a week.*
2. Methods and Model Lessons for Grades 2 to 4. Lessons, lectures, and assigned readings, covering the general work of the second, third, and fourth grades. The writing of lesson plans. Games, songs, discussion and demonstration of the principles underlying the selection and presentation of stories to children. Special attention will be given to the reading and language work of these grades. *Six hours a week.*

Professor CHASE.

3. The Theory and Practice of Teaching. Lectures and assigned work. This course will be based on Hamilton's *The Recitation*. *Three hours a week.*

DRAWING

Miss GRIGGS and Miss OWENS.

This work will be in two main divisions. In the first division, the work will be given more directly for the teachers of the primary grades, and will be more elementary in character than that of the advanced classes. In the second division, or advanced class, the work will be planned for the needs of the grammar grade teachers. Each course, *six hours a week.*

The course will comprise: (a) Pictorial representation with brush and pencil. Form, proportion and appearance of objects will be carefully studied and the principles of perspective given. (b) Decorative work and design. (c) Construction work and working drawings. This will include the making of useful articles, their decoration, planning, etc. (d) Methods of presenting the lesson and adaptation of such methods to each grade.

LIBRARY ADMINISTRATION

Professor WILSON and Miss LEATHERMAN (Secretary of the N. C. Library Commission).

Library Administration and Methods. (a) General lectures on organization and management of rural, graded, high school, teachers' association, college, and public libraries; use of dictionary card catalogue, indexes, bibliographies, dictionaries, encyclopedias, and general reference books; preparation for special readings, essays, themes, debates, etc.; selection and ordering of books and periodicals suitable for libraries; preparation of illustrated bulletins; children's books and reading. (b) Technical lectures on accessioning; classification and book numbers; cataloguing; shelf listing; charging systems; binding, re-binding and mending books; care of periodicals and pamphlets; use of government publications. Practice in the library. Practice and instruction will be given under an instructor at any time during the day to those devoting their whole time to the course. *Six hours a week.*

PUBLIC LECTURES

Each week during the Summer School there will be one or more public lectures given for the entertainment and instruction of all students in attendance. Some of the most prominent men in the State in the field of education and in other callings have already accepted invitations to lecture before the Summer School.

For further information, apply to N. W. WALKER, Director of the Summer School, Chapel Hill, N. C.



PART FIVE

**THE UNIVERSITY LIBRARY
PUBLIC LECTURES
THE BYNUM GYMNASIUM
LABORATORIES
UNIVERSITY ORGANIZATIONS**

THE UNIVERSITY LIBRARY

OFFICERS

LOUIS ROUND WILSON, Ph. D., *Librarian*.
CHARLES LEE RAPER, Ph. D., *Committeeman*.
WILLIAM CHAMBERS COKER, Ph. D., *Committeeman*.
EDWIN MIMS, Ph. D., *Committeeman*.
WILLIAM MORTON DEY, Ph. D., *Committeeman*.
NAN SPOTSWOOD STRUDWICK, *Assistant Librarian*.
ROBERT WILLIS BOBBITT, *Assistant in the Library*.
WILLIAM WHITE ROGERS, *Assistant in the Library*.
CYRUS RICHARD WHARTON, *Assistant in the Library*.
THOMAS MICHAEL RAMSAUR, *Assistant in the Library*.
GEORGE PICKET WILSON, *Assistant in the Library*.

The University Library contained at the end of the academic year 1910-1911 sixty thousand three hundred and forty-two volumes and about eighteen thousand five hundred pamphlets. This collection has been largely classified and catalogued according to the Dewey, or decimal system, and its contents have been rendered easily accessible by means of a thorough dictionary author, title, and subject card catalogue.

The Library funds are expended under the direction of the Librarian, the Library Committee, and Professors in charge of Departments with special reference to the instruction given in the University. The annual addition of books from purchase, donations, and exchanges is about thirty-seven hundred volumes, all of which are carefully classified and catalogued as they are received.

The Librarian and those assisting in the Library are constantly in attendance to give help in any line of research or reading. A special collection of dictionaries, encyclopedias, almanacs, handbooks, atlases, concordances, and other reference books is provided for general use in the reference room.

In addition to the resources of the general reference

room, the Library places at the disposal of students for reference purposes a collection of ten thousand bound periodicals covering all fields of general, technical, and professional information. A great number of the sets belonging to this collection are complete from their beginning, and consequently completely cover the history and progress of the subjects of which they treat. In this way students pursuing general academic and special technical or professional courses have access to the best American, English, and Continental periodical literature to be found on their subjects. The articles contained in these files are fully indexed in special periodical indexes and are referred to with ease.

Four hundred and thirty current periodicals, and a half hundred daily and weekly newspapers, continuing and supplementing the bound sets, are subscribed for and received annually. They are to be found in the general periodical room and in the seminars, professional schools, and scientific laboratories, where they can be consulted in the course of daily work.

As the Library is a depository for the publications of the United States government, it contains more than seven thousand volumes of material especially valuable for reference in debate and in the study of social and political science, useful arts, and the natural sciences. This collection is thoroughly indexed and its contents are easily consulted.

During the year 1910-1911 five special serving rooms were equipped in the general Library to facilitate advanced work in English and German Literatures and Languages, Greek and Latin Literatures and Languages, the Romance Literatures and Languages, History, and North Carolina History. Special scientific and professional collections are to be found in the libraries or seminars belonging to the departments in which such instruction is given. These collections are under the supervision of the instructors in the respective departments and the Librarian, and aid is given students in the use of books relating to their work.

The main Library is housed in a commodious modern library building erected in 1907, and represents an expenditure for construction and equipment of \$66,500.00. The reference, current periodical, and seminar rooms in the main Library are

large, well lighted, and have table and seating capacity for two hundred students at one time.

The stack room, contains two levels of steel shelving with stairway and glass mezzanine floor between, has with its present complement of shelving, capacity for seventy thousand volumes. Its ultimate capacity is one hundred and five thousand volumes, which, taken with that of the other parts of the building, totals one hundred and seventy-five thousand volumes.

Brief instruction in the use of the card catalogue, the periodical indexes, and the reference books generally, is given new students at the beginning of each year, and to any student at any time who may request it. Instruction in a regular University class is also given to students who are preparing for positions in school and public libraries with a view to making them more efficient in the discharge of their special duties.

The Library is open on week days from 8:30 A. M. to 1:15 P. M., and from 2:00 P. M. to 5:00 P. M.; on week day evenings, Saturday excepted, from 7:00 P. M. to 9:30 P. M.; on Sunday, from 2:30 P. M. to 4:30 P. M.; on University holidays from 3:00 P. M. to 4:00 P. M.

The following rules are considered necessary for the proper use of the Library. They will be enforced with strict impartiality.

Subscribers to the Library are the students and members of the faculty.

Other persons who desire to use the Library may become subscribers on payment of the regular Library fee.

The Library fee is four dollars a year, two dollars a term, or fifty cents a month.

Persons who are not subscribers may not borrow books on a subscriber's name.

Not more than three books may be charged to one name at the same time.

Fines for books kept over fourteen days (including the day of issue) will be imposed with exact regularity at the rate of five cents per day. Books borrowed for debate or for class use may be kept out from 9 P. M. until 10 A. M. of the following day. After that hour they are subject to a fine at the rate of

five cents per hour. The date on the pocket on fly-leaf of book is sufficient notice when the book is due.

Failure to pay fines within three weeks from the time they are due will debar the delinquent from further use of the Library.

Books from the reference room must remain in the Library during Library hours. They may be loaned only at the discretion of the Librarian.

Magazines must not be removed from the Library until they are bound. If removed they are subject to the regulations applying to debate books.

Mutilation of books or magazines, or defacement by writing in them, must be paid for by the purchase of a new copy.

Any conversation in the Library, except to obtain books desired, is forbidden.

Continued disregard for any of these rules will cause the offender to forfeit the right to use the Library.

THE JOHN CALVIN MCNAIR LECTURES

The lecture fund established by the will of John Calvin McNair, of the class of 1849, became available in 1906, and the interest therefrom rendered it possible to begin the lectures in 1908. The honorarium for the lectures amounts to \$500, and the remainder of the interest from the fund provides for the suitable publication of the lectures. Under the will the objects of the lectures "shall be to show the mutual bearing of science and religion upon each other and to prove the existence of attributes (as far as may be) of God and nature."

The lectures for 1908 were delivered by Professor Francis H. Smith, LL. D., of the University of Virginia. The three lectures were:

1. The general theme: God Manifest in the Material Universe.
2. His Attributes as Manifested in Physics.
3. His Attributes as Manifested in Astronomy.

The lectures for 1909 were delivered by President Francis Landey Patton, D. D., LL. D., of Princeton Theological Seminary, New Jersey. The four lectures were:

1. The Authority of the Bible.
2. The Authority of the Church.
3. The Authority of Christ.
4. The Authority of the Reason.

The lectures for 1910 were delivered by President David Starr Jordan, Ph. D., M. D., LL. D., of Leland Stanford, Jr. University, California. The lectures were on the theme:

The Stability of Truth.

The lectures for 1911 were delivered by Professor Henry Van Dyke, D. D., LL. D., of Princeton University. The three lectures were:

1. The Poetry of Nature.
2. The Poetry of Patriotism and Humanity.
3. The Poetry of the Unseen World.

The lectures for 1912 were delivered by President Arthur Twining Hadley, A. M., LL. D., of Yale University. The three lectures on the general subject, Some Tendencies of Modern Philosophic Thought, were:

1. Changed Conceptions of Science.
2. New Views of Ethics and of Politics.
3. The Spiritual Basis of Modern Literature.

WILLIAM PRESTON BYNUM, JR., GYMNASIUM

ROBERT BAKER LAWSON, M. D., *Director.*
JAMES RICHARD ALLISON, *Assistant.*

The William Preston Bynum, Jr., Gymnasium, the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893, is a handsome, two-storied brick building, furnished with modern apparatus, swimming pool, baths, lockers, and running track. It contains also the trophy room and the office of the Instructor in Physical Training.

Exercise in the Gymnasium is required three hours a week of all the students in college except Seniors. A thorough physical examination of each student is made in the fall, and, in case students desire it, another in the spring. The measurements are indicated in a Prescription of Exercise pamphlet and are furnished to the students free of charge in the fall term. This book contains directions for the developing of every part of the body, as well as suggestions on hygiene and personal care of the body; it is free from technicalities and confusing terms. Too much importance cannot be attached to the physical examination, since it enables the student to work intelligently and to economize his time. The physical examination is designed to aid the student by pointing out defects, and causing him to direct his efforts toward the correction of them.

LABORATORIES AND MUSEUMS

THE PHYSICAL LABORATORIES

ANDREW HENRY PATTERSON, A. M., *DIRECTOR and Professor of Physics.*

PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

CALEB KNIGHT BURGESS, *Assistant in Physics.*

The Physical Laboratory occupies the eastern half of the main floor and almost the whole of the basement floor of the Alumni Building, amounting to about eight thousand feet of floor space.

The main floor is divided into two lecture rooms, an apparatus room, laboratory for students in the general course, Physics 1, and a laboratory for X-ray and photometric work.

In the rooms of the basement are located the dynamos, motors, electrical laboratory, storage battery, and the workshop for wood and metal.

The Electrical Laboratory is equipped with standard types of electrical machines: dynamos, motors, transformers, meters, switchboard, storage battery, and the usual accessories, needed for practical instruction in electrical engineering.

The electric light, central heating, and waterworks plants constitute valuable adjuncts to the laboratory. For work in practical testing there are available a 35 H. P. Ball engine, a 20 H. P. slide-valve engine, two types of steam pumps, two gasoline engines, with calorimeters, meters, thermometers, Orsat apparatus, and other accessory apparatus necessary for making complete tests on power plants. The central power plant of the University also contains a 115 H. P. Ball and Wood engine, directly connected to a Crocker-Wheeler 3-phase generator; a 70 H. P. Skinner engine with direct-connected General Electric 3-phase generator; a 50 H. P. De Laval steam turbine; a D'Olier four stage centrifugal pump, direct-con-

nected to a 75 H. P., 3-phase Crocker-Wheeler motor, and all necessary accessories.

The old storage battery proving inadequate for the growing needs of this and other scientific departments, a new one was installed in September, 1910, consisting of sixty type E-13 cells purchased from the Electric Storage Battery Company, of Philadelphia. This installation provides a direct current of 120 volts available for use at all times.

CHEMISTRY HALL

CHARLES HOLMES HERTY, Ph. D., *DIRECTOR and Smith Professor of General and Industrial Chemistry.*

ALVIN SAWYER WHEELER, Ph. D., *Associate Professor of Organic Chemistry.*

JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*

ROBERT ANDERSON HALL, Ph. D., *Associate Professor of General Chemistry.*

JAMES TALMAGE DOBBINS, A. B., *Fellow in Chemistry.*

WILLIAM LEWIS JEFFRIES, A. B., *Toch Fellow in Chemistry.*

CHARLES WILSON WILLIARD, B. S., *Le Doux Fellow in Chemistry.*

PAUL ROBY BRYAN, *Assistant in Chemistry.*

CARNIE BLAKE CARTER, *Assistant in Chemistry.*

CLARENCE BALLEW HOKE, *Assistant in Chemistry.*

FLEMING ROSS WEAVER, *Assistant in Chemistry.*

The overcrowded condition of the laboratories and lecture room in Person Hall, and the unsatisfactory ventilation of the laboratories, made urgent the need for a larger and better arranged building for the Department of Chemistry. These facts, together with the complete plans for a new building, were laid before the Legislature in 1905 and an appropriation of \$50,000 asked. The appropriation was voted, and in a short while the work of construction was under way.

The new building, Chemistry Hall, is located east of Alumni Hall and north of the New East building, facing west. By the selection of this location good water pressure is assured for all of the laboratories in the building.

The outer walls are of salt and pepper brick laid with black mortar.

The main building, 120 x 68 x 48, comprises a first floor, a second floor, and a commodious basement. Adjoining this main building and to the rear of the center is the lecture room, 41 x 62 x 22.

To the right on entering the main building are the office and the private laboratory of the Director, the department library, and a small lecture room: to the left are the office and private laboratory of the Associate Professor of Organic Chemistry, a large laboratory for organic chemistry, containing locker desks for twenty-four students, and a combustion room.

On the rear or east side of the first floor are the laboratories for quantitative analysis (thirty-two desks), and adjacent fume room, advanced qualitative analysis (twenty-four desks), and technical chemistry (six desks). At each end of the corridor are balance rooms.

On the second floor are the laboratories for general chemistry (sixty-six desks), qualitative analysis (sixty desks), physical chemistry (eight desks), electro-chemistry (eight desks), a research laboratory (sixteen desks), a laboratory for physiological chemistry (forty-eight desks), a fume room, and a small lecture room. At the ends of the corridor on the second floor are a balance room, preparation room, and a dark room for spectroscopic work.

In the basement are the assay laboratory, rooms for gas machine, electric furnace, technical chemistry, constant temperature, a photographic dark room, laboratory and museum for chemical mineralogy, a carpenter-shop, stock room for heavy chemicals, and a large stock room for chemicals and apparatus. From this stock room material is supplied to each floor of the building by an elevator.

Each laboratory is furnished with ample fume closets for the removal of noxious gases, while pivoted window sash insure proper ventilation of the rooms.

The entire building is heated by hot water from the central system of the University.

The main entrance hall leads direct to the lecture room, which is well lighted by high arched windows and has a seating capacity of two hundred, which can be increased somewhat as

need requires. To the rear of the lecture room are a preparation room, and a museum for specimens of typical chemicals, mineral, and products illustrating the various phases of chemical industries. Above these two last rooms is a small room for filing charts, diagrams, etc., used in illustrating lectures.

The recently installed storage battery in the Department of Physics furnishes ample current for stereopticon purposes and for motors.

THE BIOLOGICAL LABORATORY

HENRY VAN PETERS WILSON, Ph. D., DIRECTOR, and *Professor of Zoology*.

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany*.

WESLEY CRITZ GEORGE, A. B., *Assistant in Zoology*.

LEE FRANKLIN TURLINGTON, A. B., *Assistant in Zoology*.

WILLIAM BATTLE COBB, *Assistant in Botany*.

The Biological Laboratory, which bears the name of Davie Hall, is occupied by the Departments of Zoology and Botany. The building is a rectangular structure of pepper and salt brick and is divided into a main body and two wings. The total length is 125 feet, the depth of the main body 44 feet, that of the wings 38 feet. A basement underlies the whole, above which are two floors. The main body has an additional third chamber, which extends out over the wings, forming spacious air chambers. The building faces north and south, lies to the east of the New East, and adjoins the Arboretum.

The entrance hall, on the first floor, lit with large windows on either side of the main doorway, serves for the exhibition of museum specimens of a more popular character. Back of the entrance hall are herbarium, a room for charts and other lecture apparatus, and a room for the storage of zoological specimens. The east wing of this floor is occupied by a lecture room with a seating capacity of one hundred and twenty, the west wing by a laboratory for the elementary classes in zoology and botany. The latter laboratory is arranged for twenty-four wall tables with window in front of each table.

On the second floor the east wing is occupied by a single large laboratory for advanced work in zoology and the west

wing by a similar laboratory for advanced work in botany. Each of these rooms accommodates twenty workers and is lit on three sides with twenty windows. The main building on this floor includes private work rooms for the professors of zoology and botany, two store rooms, and a library. On the third floor of the main body is a photographic studio with windows on the north side extending to the floor, and with skylights. The building is provided with electric lights and is heated with hot water. The furnace and fuel rooms are in the basement. Here also are fire proof incubator room, a room for micro-photography with adjoining dark room, janitor's shop, and rooms for the storage of heavy supplies. The wings in the basement are designed for the keeping of live animals and plants for experimental work in botany and zoology. An elevator connects the basement with all floors.

THE GEOLOGICAL LABORATORY AND MUSEUM

COLLIER COBB, A. M., *DIRECTOR and Professor of Geology and Mineralogy.*

JOSEPH HYDE PRATT, Ph. D., *State Geologist and Professor of Economics.*

WILLIAM HENRY FRY, S. B., *Instructor in Geology.*

CHARLES ALEXANDER VOGLER, A. B., *Assistant in Geology.*

The Geological Laboratory occupies the first floor of the New East building. In addition to a lecture room with a seating capacity of about ninety, there is a large laboratory supplied with working collections of minerals, rocks, and fossils, and with photographs, maps, and models illustrating geological structure. The laboratory is furnished with two petrographical microscopes, with microscopes for soil study, and with apparatus for the slicing and polishing of rocks. Microscopic slides have been made of most of the specimens from North Carolina; and the department has, also, sections of the typical European rocks. Sections of the rocks around Chapel Hill, and the igneous rocks of the Boston Basin, made by the late Hunter Lee Harris, of the class of 1889, were given to the geological department. There is a room for photographic work.

The University possesses a collection of more than two thousand specimens of building stones, coal, and various products

illustrating the economic geology of the State. These are arranged in an exhibition room of six hundred and fifty square feet of floor space. Here also are kept the sections taken with a diamond drill in the coal regions of Pennsylvania, in the region around King's Mountain, where the Summer School of Geology held its sessions, in the Dan River coal fields, and in the Triassic Rocks at Durham, N. C. A complete set of the ores of the precious metals found along the line of the Atchison, Topeka and Santa Fe Railroad is included in the collection. Valuable additions have been made to the collection of fossils also, affording increased opportunity for laboratory work in historical geology and paleontology. A small collection of tertiary type fossils from Florida, the gift of Mr. Joseph Wilcox, of Philadelphia, is the most recent addition to the paleontological collection. The collection illustrating economic geology has been largely increased.

The department library, which occupies a room adjoining the exhibition room, is supplied with State and United States Reports, the papers of working geologists, the best works upon Geology, and scientific periodicals.

UNIVERSITY ORGANIZATIONS

THE DIALECTIC AND PHILANTHROPIC LITERARY SOCIETIES

The Dialectic and Philanthropic Literary Societies were organized in 1795, the year of the opening of the University. Their existence has been inseparably linked with that of the University, and they have shown remarkable power in developing character as well as in training the intellect. They offer facilities for practice in debate, oratory, declamation, and essay writing; and their members become practically familiar with parliamentary law and usage.

Each society owns a large, handsomely furnished hall, the walls of which are hung with oil portraits of illustrious members. Meetings are held by each society every Saturday evening during the college year, admission being confined to members. Public contests in debate between the two societies are conducted twice a week, and in addition to these, there is a system of intercollegiate debates. On Monday evening before Commencement the Inter-Society banquet is held, after which each society has its annual reunion. On Monday evening preceding Commencement day four representatives elected from the two societies have a public competition in debate, and a prize is awarded to the successful competitors.

By immemorial custom, students from the eastern half of the State usually join the Philanthropic Society, while those from the western half join the Dialectic Society. Although membership in the societies is entirely optional, yet it is earnestly recommended by the faculty as furnishing unusual opportunities not only for literary culture, but also for the development of self control and the power to persuade and control others.

ELISHA MITCHELL SCIENTIFIC SOCIETY

WILLIAM DEBERNIERE MCNIDER, M. D., *President*.
ARCHIBALD HENDERSON, Ph. D., *Vice-President*.

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., *Permanent Secretary and Treasurer.*

ROBERT ANDERSON HALL, Ph. D., *Recording Secretary.*

The Elisha Mitchell Scientific Society holds monthly meetings during the college year for the discussion of scientific subjects. A Journal, which is the official organ of the North Carolina Academy of Science, is issued quarterly. The object of the Society is to encourage scientific research and to record such matters as pertain to the natural history of the State. The membership is at present restricted to the faculty and students of the University, and members of the staff of the Geological Survey.

At the monthly meetings, which are ordinarily held on the second Tuesday of each month, excellent opportunities are afforded the students to get beyond the ordinary routine of the class room by hearing, reading, and discussing papers on scientific subjects.

The Journal is in a measure a bulletin of the scientific laboratories of the University, and contains many articles written by research students. It is now in the twenty-sixth year. The volumes already issued contain twenty-five hundred pages. By the exchange of the Journal with more than three hundred scientific journals and periodicals, over ten thousand books and pamphlets have been collected, all of which are arranged in the University Library.

THE NORTH CAROLINA HISTORICAL SOCIETY

HENRY MCGILBERT WAGSTAFF, Ph. D., *President.*

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *Permanent Secretary.*

JAMES HALL RAND, *Vice-President.*

CALEB KNIGHT BURGESS, *Secretary.*

The North Carolina Historical Society was founded in 1833 by Governor David L. Swain. When Governor Swain became President of the University, the Society was moved from Raleigh to Chapel Hill. Under his leadership it became the centre of historical work in the State and the medium of many notable contributions to the history of the State. On March

22, 1875, through the activity of Kemp Plummer Battle, LL. D., the Society was chartered by an act of the General Assembly. The purpose of the Society is to collect, classify, and publish material illustrative of the history of the State. The Society possesses a valuable collection of books, pamphlets, manuscripts, newspaper files, coins, and other subjects of historic interest. The educational aim of the Society is to create a love for historical study and to give training in scientific methods of historical investigation. To this end meetings are held monthly in the History lecture room, at which papers, based on original research, are read and discussed. All members of the University are eligible for membership.

THE PHILOLOGICAL CLUB

CHARLES WESLEY BAIN, M. A., *President*.

GEORGE BURRIDGE VILES, Ph. D., *Vice-President*.

OLIVER TOWLES, A. B., *Secretary*.

LOUIS ROUND WILSON, Ph. D., *Permanent Secretary and Treasurer*.

The Philological Club meets on the first Tuesday evening of each month during the college year. Its membership consists of the instructors and advanced students in the language departments of the University. The object of the Club is to stimulate original investigation in philology and to afford an opportunity for the interchange of views on subjects relating to such work. At each meeting papers are read and discussed. The Club publishes a journal of two issues a year whose contents are contributed by the members. All persons interested in the work of the Club are invited to attend its meetings.

DER DEUTSCHE VEREIN

WALTER DALLAM TOY, M. A., *President*.

The Verein was organized with a view of stimulating interest among the officers and students of the University in all topics pertaining to German life. Weekly meetings are held throughout the year, at which the German language only is employed. Subjects of general interest pertaining to German literature, history, art, and politics are discussed. An effort is

made also to provide students of German with an opportunity to perfect their pronunciation and to improve their control of the spoken language. It is part of the purpose of the Verein to arrange from time to time for public lectures in German. All officers and students of the University interested in the study of German are eligible to membership.

LE CERCLE FRANCAIS

WILLIAM MORTON DEY, Ph. D., *President*.

OLIVER TOWLES, A. B., *Permanent Secretary*.

Le Cercle Francais holds weekly meetings at which topics of general interest pertaining to French literature, and French life, manners, and customs are discussed. The French language is employed exclusively. It is the aim of the club to stimulate interest in the French language, to provide its members with an opportunity to hear idiomatic French spoken, and to use the language with more facility. All officers and students of the University interested in the study of French are eligible to membership.

MUSICAL ASSOCIATION

HOWARD STEPHEN PEMBER, *President*.

HOWARD BUTLER SHOFNER, *Vice-President*.

WILLIAM GRAVES, *Business Manager*.

DOUGLAS LETELLE RIGHTS, *Secretary and Treasurer*.

The aim of the association is to foster the love of music and to afford opportunity of instruction to those interested in music. The organization consists of an orchestra, a brass band, a mandolin and a glee club, which are representative of the musical talent of the University.

THE UNIVERSITY COUNCIL

R. A. FREEMAN, *President*, President of the Senior Class.

R. O. HUFFMAN, *Secretary*, President of the Junior Class.

C. E. BLACKSTOCK, President of the Sophomore Class.

J. R. ALLISON, President of the Second Year Medical Class.

A. G. WEBB, President of the Second Year Pharmacy Class.

C. D. HOGUE, A. B., Representative from the Law Class.

C. E. TEAGUE, (elected by Council) Representative from the Senior Class.

R. M. HANES, Representative from the Student Body at Large.

The University Council is the head of the honor system. It is the concrete expression of the moral University, the student instrument of self-government. Its members being elected of the students by the students, it is grounded upon, and gives expression to, student sentiment. The Council is not an organization of policemen, nor is it based upon a system of espionage. When any student is felt by his fellow students to be unworthy to remain in the University, the Council takes cognizance of this feeling. It examines into the matter, finds the facts in the case, and decides upon the justice of that feeling. If the student is found guilty of conduct unworthy of a University man, he is requested by the Council to leave the University. For example, if it becomes known among the students that a man has been guilty of cheating upon examination he is disgraced in the eyes of the University community; and the students without hesitation, through their organ of expression, the Council, demand that he forthwith leave the University. The student sentiment expresses itself in this way not only in case of so flagrant a violation of the honor system as cheating, but also in cases of continued drunkenness, gambling, and such other forms of misconduct. Thus it can be seen that the student body has an effective system of self-government, that the motive power of this self-government is student sentiment, and that the organ of expression of this sentiment is the University Council.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION

JOHN C. LOCKHART, *President*.

FREDERICK B. DRANE, *Vice-President*.

CLARENCE E. NORMAN, *Recording Secretary*.

WALTER D. BARBEE, *Treasurer*.

EDMUND P. HALL, A. B., *General Secretary*.

The University Young Men's Christian Association, with its centrally located House as a meeting place and home for the students; with its work for new students; with its social re-

ceptions; with its annually published handbook and directory; with its lyceum course; with its support of eight Sunday schools; with its self-help department; with its semi-weekly religious meetings; with its ministerial and missionary clubs; with its large enrollment of men in Bible and mission study; the Young Men's Christian Association through these channels is an organized agency for usefulness and an aggressive force for morality in the University life.

However, "the Young Men's Christian Association may not be viewed," says a member of the faculty, "merely as an institution for the conduct of mission work, Bible study and religious meetings. Besides these excellent works which it shares with the churches, it is unique as a democratic student organization wholly given up to solving problems of right living. Its energy, sanity and devotion have made it the most prominent and efficient organization in the college and the most beneficent influence in the life of the college community."

Bible Courses

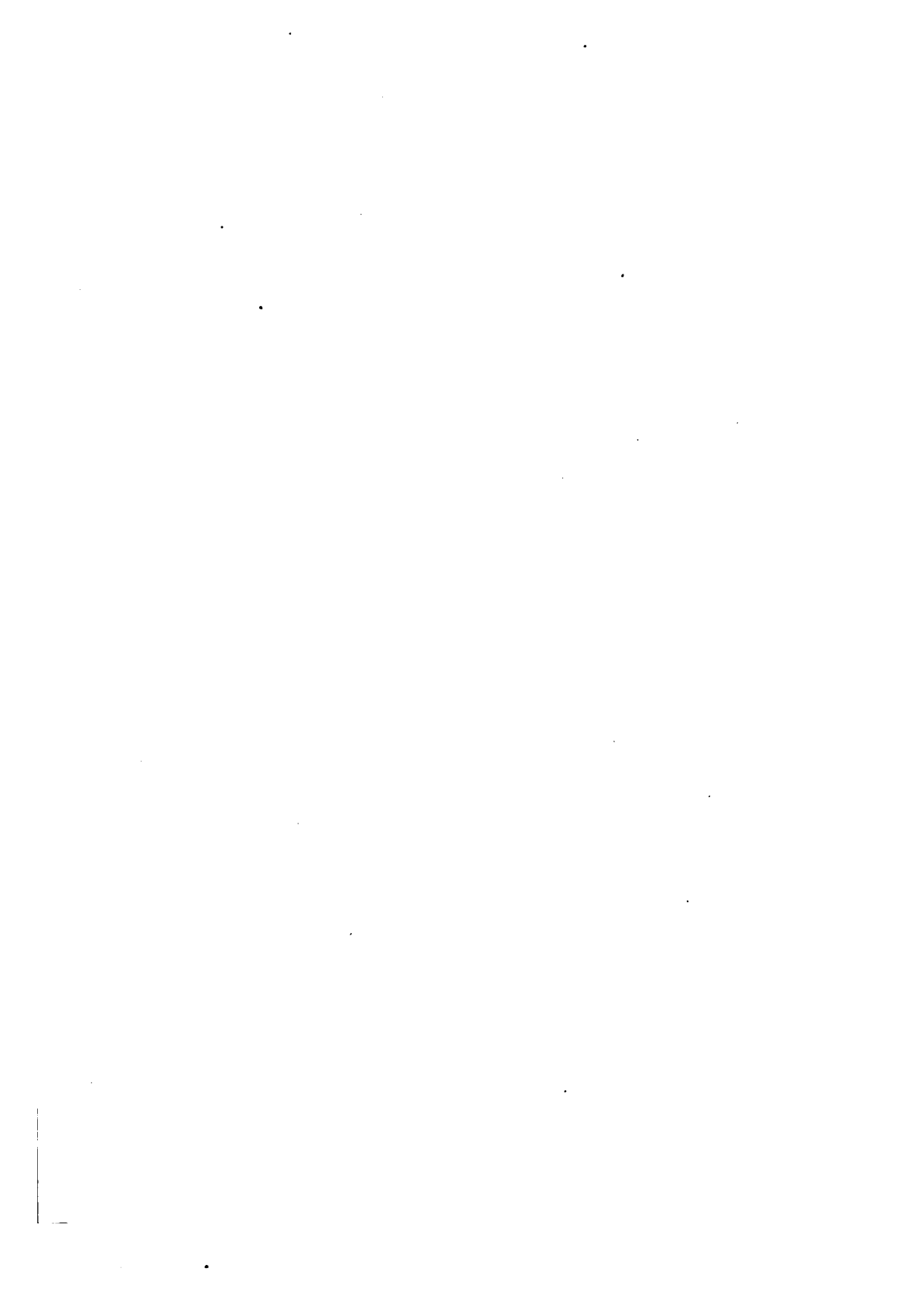
1. Studies in the Life of Christ (Bosworth). Leaders: F. B. Drane, J. R. Gentry, E. W. Joyner, J. W. Morris, Jr., G. B. Phillips, H. Sisk, S. W. Whiting, A. L. M. Wiggins.
2. Men of the Old Testament (Willman). Leaders: John C. Lockhart, T. E. Story, H. R. Totten.
3. New Studies in Acts (Bosworth). Leaders: E. M. Coulter, R. B. McKnight, T. M. Ramsaur, H. S. Willis.
4. Lecture Course on several Books of the Bible, by Dr. Mims.
5. Normal Class Leaders: Rev. H. W. Starr, Rev. W. O. Stanbury, Secretary E. P. Hall.

Mission Courses

The Decisive Hour in Christian Mission.
The Challenge of the City, by Professor A. H. Patterson.
The Unoccupied Fields.

PART SIX

**COMMENCEMENT
LIST OF STUDENTS
ALUMNI ASSOCIATIONS
SCHEDULES
INDEX**



ONE HUNDRED AND SIXTEENTH COMMENCEMENT

Saturday, May 27

SENIOR SPEAKERS

Israel Harding Hughes, Charles Eugene McIntosh,
Clawson Lee Williams.

Sunday, May 28

BACCALAUREATE SERMON

The Right Reverend Collins Denny, D. D.

SERMON BEFORE THE YOUNG MEN'S CHRISTIAN ASSOCIATION

The Reverend Ira Landrith, D. D.

Monday, May 29

ALUMNI EXERCISES

Reunions of the Classes 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868,
1886, 1891, 1901, 1906.

**THE DEBATE BY REPRESENTATIVES FROM THE DIALECTIC AND
PHILANTHROPIC LITERARY SOCIETIES**

Dialectic

Robert Alexander Freeman,
Cyrus Richard Wharton,

Philanthropic

Caleb Kight Burgess,
Claude Edward Teague,

Tuesday, May 30, Commencement Day

THE COMMENCEMENT ADDRESS

Woodrow Wilson, Ph. D., LL. D., Litt. D.

DEGREES IN COURSE**Bachelors of Arts**

Odom Alexander,	Ernest Cobb McLean,
James Richard Allison,	Grover Carlisle Mann,
Karl Braswell Bailey,	Ira Cleveland Moser,
Connie Cazette Barbee,	Naaman Spencer Mullican,
John Manning Battle,	Jack Cotten Oates,
William Parks Belk,	James Frank Oliver,
William Patterson Bivens,	Gus Palmer,
Alexander McNeill Blue,	William Murdock Parsley,
Daniel Bunyan Bryan,	George Washington Rhodes,
Edward Robertson Buchan,	Hoyt Roberson,
Robert Hume Claytor,	John Montgomery Shields,
Williamson Lee Cooper, Jr.,	Walter Lowry Small,
Joseph Sanford Cowles,	Henry Clark Smith,
Joseph Green Dawson,	Harry Meyer Solomon,
William Archie Dees,	Barney Cleveland Stewart,
Paul Dickson,	Richard Gordon Stockton,
James Talmage Dobbins,	Kenneth Spencer Tanner,
Ferdinand John Duls,	Walter Frank Taylor,
Joshua Lawrence Eason,	William Renn Thomas,
Alexander Littlejohn Feild,	Cyrus Thompson, Jr.,
John Webster Freeman,	Gordon Wesley Thompson,
Wesley Critz George,	John Tillett,
George Graham,	Benjamin Carter Trotter,
William Conrad Guess,	Edgar Willis Turlington,
Charles Walker Gunter,	Charles Alexander Vogler,
Roger Baker Hall,	Joseph Gabriel Walker,
Osborne Bennett Hardison,	Eugene Carroll Ward,
John Warton Harris,	Richard Thompson Webb,
William Henry Hathcock,	Elmer James Wellons,
Margaret Bennett Horsfield,	Noel Elliott West,
Israel Harding Hughes,	Lyman Beckwith Whitaker,
Fred Caldwell Hunter,	Moses Andrew White,
Mary Jarman,	Floyd Gilbert Whitney,
William Henry Jones,	James Rowland Wildman,
William Thomas Joyner,	Clawson Lee Williams,
Burke Haywood Knight,	Edward Locke Williams,
Joseph Raymond Lee,	Louis Hicks Williams,
Samuel Edwin Leonard,	Louise Agatha Wilson,
Henry Wise Lyon,	Isham Faison Witherington,
Edgar Franklin McCulloch, Jr.,	John Elliott Wood,
John Archibald McGoogan,	Marshall Boylan Wyatt,
Charles Eugene McIntosh,	Algernon Augustus Zollicoffer,
John Archibald McKay,	Jere Perry Zollicoffer.

Bachelors of Science

Roy Tilson Brown,	Herbert Lee Martin,
William Burwell Ellis, Jr.,	Eduardo Francisco Rodriguez,
Robert Lee Hunter,	William Augustus Rudisill,
Junius Spaeth Koener, Jr.,	Richard Raymond Smith,
Felix Luciano Llorens,	Thaddeus Williams Voils,
Francisco Llorens,	Charles Wilson Williard.
Tomas Vicente Llorens,	

Bachelor of Laws

James Allen Austin.

Graduates in Pharmacy

Henry Grady Coleman,	Fabius Jefferson Hunnicutt,
Lee Davenport,	Cader Rhodes,
Louis Enloe Hesterly,	George Walter Waters, Jr.

Masters of Arts

William Patterson Bivens,	Abel Clarence Lineberger,
Thomas Marcellus Broadfoot,	Rufus William McCulloch,
Levi Ames Brown,	Thomas Palmer Nash, Jr.,
Jonas McAulay Costner, Jr.,	Maude Pritchard,
Claude Cleveland Fonville,	Charles Scott Venable,
Orren Williams Hyman,	William Franklin Warren,
Shinjiro Kitasawa,	Edgar Strickland Welborn.
John Wayne Lasley, Jr.,	

Master of Science

Hamden Hill.

WAR CLASSES**Class of 1862**

Samuel Jay Andrews,	Matthew Joseph Moore,
James M. Blain,	Armistead Hill Patterson,
Robert Warren Boyd,	James H. Polk,
Isaac W. Clark,	Harry Hill Price,
James Madison Covington,	Clement Lanier Richardson,
Willie Beeton Fort,	Andrew S. Routh,
John Wetmore Hinsdale,	Angus Shaw,
Alfred Charles Briggs Holt,	William J. Smith,
William Elza Hunt,	Thomas Wallace Taylor,
William H. McLaurin,	Thomas Shepherd Webb,
Thomas A. Morrow,	Benjamin Franklin Whitner.
Andrew Jackson Moore,	

Class of 1863

Benjamin Blake Adams,	James McKee,
Hugh M. Arnold,	John Wright Mallett,
Thomas Badger,	Calvin Yates Marshall,
David Samuel Barrett,	Charles F. Martin,
Tim Ervin Cooper,	Robert Bruce Peebles,
Moses Ashley Curtis,	Mark Bennett Pitt,
Henry Clay Foscue,	George Decatur Pool,
John A. Hall,	Lavender R. Ray,
Archibald E. Henderson,	Caleb Hazzard Richmond,
Benjamin McC. Hord,	Robert M. Rogers,
Benjamin S. Johnson,	Joseph H. Scales,
Gabriel Johnston,	Norman Leslie Shaw,
John R. Joyner,	Olin Wellborn,
Robert W. Joyner,	James Fennimore Cooper Williams,
James Samuel Lucas,	William Edmund Winston.

Class of 1864

John A. Baker,	Charles Motz,
William James Harris Bellamy,	Joseph Bryan Oliver,
James Paul Britt,	Rufus J. Polk,
Henry H. Bryan,	Mungo Tone Purnell,
Joseph Williams Chalmers,	William Richardson,
Thomas Barrett Hagood,	Stanley Morehead Riggsbee,
Middleton Hays,	Robert Gilliam Russell,
Henderson D. Judd,	E. Douglas Sandford,
Richard Henry Lee,	Preston H. Sessoms,
James Monroe Long,	Thomas Medicus Wiggins.
James Isaac Metts,	

Class of 1865

Thomas Owen Bunting,	A. Branson Howard,
William Henry Call,	John Taylor Rankin,
James Petigru Carson,	Richard H. Sims,
John Whitaker Cotten,	Robert Willoughby Williams.
William M. Davies,	

Class of 1866

Julian Shakespeare Carr,	Francis Slade Norfleet,
Henry Ensley Coleman,	A. Ferdinand Johnson,
David H. Edwards,	John Burgwyn MacRae,
William Frederick Hargrave,	George Walker Wallace.
Ernest M. Lindsay,	

Class of 1867

Andrew J. Burton,	Stephen Ferrand Lord,
Edmund DeBerry Covington,	James M. Means,
John E. Donalson,	Onslow Regan,
Frank Shepard Faison,	Benjamin D. Webb,
John Bowie Gray,	Solomon Buxton Williams.

Class of 1868

Colin M. Hawkins,	Thomas D. Meares.
Edmund Jones,	

The following, who if living would have received the degree at this Commencement, are recorded as having received the degree of A. B.:

Class of 1861

Edward C. Easterling.

Class of 1862

James M. Adams,	Harrison P. Lyon,
Edward H. Armstrong,	Richardson Mallett,
Archibald H. Arrington,	Henry McMillan,
Leonard W. Bartlett,	William H. H. Mills,
Dossey Battle,	Albert G. Moore,
Marsden Bellamy,	John D. Parker,
J. E. Benbury,	Samuel P. Pool,
William Biggs,	Eugene C. Rhodes,
Octavius H. Blocker,	Samuel N. Richardson,
Thomas J. Burke,	Edwin H. Russell,
Edward J. Chilton,	Fletcher T. Seymour,
William L. Church,	Thomas Gregory Skinner,
Timothy W. Davis,	Samuel W. Smith,
James C. Doss,	Samuel Snow,
Alcee Dupre,	Lawson W. Sykes,
William T. Ennett,	Henry H. Taylor,
James H. Exum,	James E. Townes,
William M. Fetter,	William B. Vandever,
John C. Gaines,	Henry C. Wall,
Thomas W. D. Hardeman,	William B. Whitfield,
Aurelius C. Jones,	Sidney Womack,
Adolphe Lastrapes,	William L. Yager.
Julian A. Latham,	

Class of 1863

James R. Bartee,	Jesse H. Person,
Edward F. Bass,	William P. Gill,
George P. Bass,	Joseph J. D. Hodges,

W. Lewis Battle,
 George Bishop,
 James D. Blanchard,
 Richard Bradley,
 William A. Brown,
 Elias Bunn,
 Seaborn W. Chisholm,
 George M. Clark,
 Joseph B. Coggin,
 Kerr Craige,
 Virginius Copeland,
 Reuben R. deJarnette,
 Samuel Donelson,
 G. Ferdinand Farrow,
 William D. Ferguson,
 Jesse D. Franklin,
 Hyder A. Kennedy,
 William P. Lane,
 Abner McAfee,
 Joseph A. McDermott,
 Josiah J. Matthews,
 William N. Mebane,
 James B. Mitchell,
 Julius C. Mitchell,
 Randolph Mitchell,
 Augustus M. Moore,
 George B. Moore,
 R. Alexander Morrow,
 John H. Parsons,
 Benjamin L. Perry,

Thomas J. Johns,
 John Willie Jones,
 Kenneth R. Jones,
 Robert W. Joyner,
 John M. Kelly,
 Neill R. Kelly,
 Benjamin T. Powell,
 Nymphas E. Price,
 George A. Ramsey,
 Richard W. Respass,
 William J. Robards,
 S. Garland Ryan,
 Richard H. Smith,
 William T. Smith,
 John F. Speight,
 Simmons B. Staton,
 Felix Tankersley,
 Ruffin Thomson,
 G. Edwards Thurmond,
 Lucien P. Tyson,
 G. Lawrence Washington,
 Thomas R. Watkins,
 William J. White,
 Mirandy Williford,
 George H. Williamson,
 John A. Winston,
 Ernest L. Wittich,
 Benjamin T. Worthington,
 Augustus P. Young,

Class of 1864

Joseph H. Adams,
 Samuel J. Arnold,
 Edward R. Atkinson,
 Willoughby F. Avery,
 James Barrett,
 Charles H. Blocker,
 Carney P. Bryan,
 Thomas Capehart,
 Montraville D. Clegg,
 William H. Day,
 James W. Draughon,
 F. Edgeworth Eve,

William R. McKethan,
 John M. McNabb,
 Robert C. McRee,
 John M. Moring,
 Daniel F. Morrow,
 Bryant P. Morse,
 Edward A. T. Nicholson,
 James A. Nicholson,
 William J. Rhodes,
 James L. Richmond,
 William T. Riggs,
 Henry J. Robertson,

Richard M. Footman,
John Garlington,
Henry A. Gordon,
Samuel Wiley Gray,
John A. Green,
William M. Gunnels,
William T. Hargrave,
Theophilus H. Holmes,
Edward L. Jeffreys,
John M. Johnson,
James C. Jones,
William R. Kenan,
Thomas S. Lindsay,
Neverson C. Maner,
Clarence D. Martin,
William C. McDaniel,

William T. Rogers,
Daniel L. Russell,
Thomas P. Savage,
Ambrose H. Sevier,
Abraham K. Smedes,
Walter J. Smith,
William N. Sneed,
Seth B. Speight,
Fabius W. Sturdivant,
John M. Sutton,
Charles Vines,
William H. G. Webb,
Octavius A. Wiggins,
Stephen Winstead,
James B. Young,
William H. Young.

Class of 1865

Joseph H. Branch,
William M. Chalmers,
Henry Fetter,
Alva C. Hartsfield,
John R. Haughton,
Leroy Havens,
Henry C. Miller,

Thomas L. Norwood,
Napoleon B. Owens,
William Fletcher Parker,
Edward L. Richardson,
Nathan I. Sneed,
Washington Thomas.

Class of 1866

Walter B. Chambliss,
John B. Hussey,
John Johnston,
John W. Laurence,
John R. Mason,

Joseph C. Mickle,
Fredrick Nash,
George Simrall,
Mark DeWolfe Stevenson.

Class of 1867

Braxton Bragg,
William A. B. Branch,
George P. Burgwyn,
Hugh M. Caffey,
Joseph Cotten,
William W. Fleming,

Richard G. Haden,
Herbert Mallett,
Julius C. Mills,
Hugh H. Perry,
James J. Phillips,
Alexander H. Smith.

Class of 1868

Maurice DeK. Thompson.

HONORARY DEGREES**Doctors of Laws**

* Daniel Harvey Hill
Woodrow Wilson.

MEDALS, PRIZES AND FELLOWSHIPS

The William Cain Medal in Mathematics: A. L. Feild.
The Harris Prize in Anatomy: Robert Drane.
The Eben Alexander Prize in Greek: F. W. Morrison.
The Worth Prize in Philosophy: E. L. Williams.
The Early English Text Society Prize: A. C. Lineberger.
The Henry R. Bryan Prize in Law: J. A. Austin.
Prizes in N. C. Colonial History: 1, W. C. Guess; 2, E. C. Ward.
The Toch Fellowship in Chemistry: W. L. Jeffries.
The Babbitt Scholarship in Chemistry: B. H. Knight.
Fellowship in Chemistry: J. T. Dobbins.
The W. J. Bryan Prize in Political Science: G. W. Thompson.
The Ben Smith Preston Cup: L. N. Morgan.
The Bingham Prize: C. E. Teague.
The Mangum Medal: C. E. McIntosh.
 Elected to membership in the *Phi Beta Kappa Society*, 1911: L. N. Morgan, W. E. Hossfeld, F. P. Barker, C. K. Burgess, R. A. Freeman, A. W. Graham, Jr., P. H. Gwynn, Jr., F. W. Hossfeld, Jr., H. L. Parrish, Jr.

CERTIFICATES

Civil Engineering: F. Llorens, T. V. Llorens, E. F. Rodriguez.
Electrical Engineering: J. S. Koiner, Jr., F. L. Llorens, H. L. Martin, T. W. Voils.
English: W. P. Bivens, J. W. Harris, G. C. Mann, G. W. Rhodes.
French: J. A. McKay.
German: F. J. Duls, H. M. Solomon.
Greek: J. A. McGoogan.
History: Frank Hough.
Latin: W. F. Taylor, W. R. Thomas.
Mining Engineering: R. R. Smith.
Pedagogy: S. E. Leonard, Hoyt Roberson.

* Conferred October 12, 1910.

STUDENTS (1911-1912)

Graduates

NAME	YEAR	RESIDENCE
Bradford, Lawrence Howard, A. B., 1911, East Texas Normal College.	<i>First</i> ,	Greenville, Tex. Philosophy, English, Economics.
Daily, John Napoleon, A. B., 1910, East Texas Normal College.	<i>First</i> ,	Terrell, Tex. English, Philosophy, Education. Candidate for A. M.
Dobbins, James Talmage, A. B., 1911. Chemistry, Physics, Economics.	<i>First</i> ,	Rockford. Candidate for A. M.
Eagles, Theophilus Randolph, A. B., 1908. Mathematics, Economics, English.	<i>Second</i> ,	Chapel Hill. Candidate for A. M.
Faires, Rosabelle Simonton, A. M., 1909. German.	<i>Third</i> ,	Chapel Hill.
Fry, William Henry, A. B., 1910. Geology, Zoology, Chemistry.	<i>Second</i> ,	Chapel Hill. Candidate for S. M.
George, Wesley Critz, A. B., 1911. Botany, Zoology, English.	<i>First</i> ,	Elkin. Candidate for A. M.
Hall, Edmund Pleasant, A. B., 1910, University of Georgia.	<i>First</i> ,	Chapel Hill. Philosophy.
Harris, John Warton, A. B., 1911. Zoology, Physics, English.	<i>First</i> ,	Reidsville. Candidate for A. M.
Henry, George Kenneth Grant, A. B., 1900, A. M., 1904, Hamilton College.	<i>Fourth</i> ,	Chapel Hill. Latin, Greek, French. Candidate for Ph. D.
Irwin, James Preston, S. B., 1904. Chemistry.	<i>First</i> ,	Charlotte.
Jeffries, William Lewis, A. B., 1910. Chemistry, Physics, Economics.	<i>Second</i> ,	Edgefield, S. C. Candidate for A. M.
Knight, Burke Haywood, A. B., 1911. Chemistry, Zoology, English.	<i>First</i> ,	Williamston. Candidate for A. M.
Lasley, John Wayne, Jr., A. M., 1911. Mathematics.	<i>First</i> ,	Burlington. Candidate for Ph. D.
McKay, John Archibald, A. B., 1911. Botany, Zoology, Physics.	<i>First</i> ,	Buie's Creek. Candidate for A. M.
McLean, John Lacy, A. M., 1908., Davidson College.	<i>First</i> ,	Maxton. Physics, Drawing.
Patterson, Earl Victor, History, English, Education.	<i>First</i> ,	Burlington. Candidate for A. B. and A. M.

- Rankin, William Walker, Jr., *First*, Charlotte.
B. E., 1904, North Carolina College of Agriculture and Mechanic
Arts. Mathematics, Physics, Education. Candidate for A. M.
- Ray, Hubert Roy, *First*, Raleigh.
Geology, Physics, Economics. Candidate for A. B. and A. M.
- Slade, Thomas Bog, Jr., *First*, Hamilton.
Physics, Chemistry, Mathematics. Candidate for S. B. and S. M.
- Stanbury, Walter Adair, *First*, Chapel Hill.
A. B., 1908, Trinity. Philosophy.
- Starr, Homer Worthington, *First*, Chapel Hill.
B. A., 1900, Harvard, M. A., 1901, The University of the South.
English, Economics, History. Candidate for Ph. D.
- Thomas, William Renn, *First*, Hiddenite.
A. B., 1911, French, Latin, Education. Candidate for A. M.
- Williard, Charles Wilson, *First*, Winston-Salem.
S. B., 1911, Chemistry, Botany, English. Candidate for S. M.
- Wood, Eugene Herbert, *First*, Gaffney, S. C.
S. B., 1909, Clemson College. Economics, English, Education, Philosophy.
- Wood, John Elliott, *First*, Elizabeth City.
A. B., 1911, Mathematics, Physics, English. Candidate for A. M.

Senior Class

- | | | |
|------------------------------|----------|----------------|
| Armstrong, Cleaton Otis, | Arts, | Ayden. |
| Atkinson, Alexander Morse, | Science, | Enfield. |
| Barbee, Walter Dorsey, | Arts, | Morrisville. |
| Barker, Frank Pendleton, | Arts, | Pembroke, Ky. |
| Bobbitt, Robert Willis, | Arts, | Henderson. |
| Burgess, Caleb Kight, | Arts, | Old Trap. |
| Carter, Walter, | Science, | Salisbury. |
| Cates, Clyde Lucius, | Arts, | Chapel Hill. |
| Cline, William Preston, | Arts, | Irmo, S. C. |
| A. B., 1906, Lenoir College. | | |
| Clingman, John Burton, | Science, | Winston-Salem. |
| Cobb, William Battle, | Arts, | Charlotte. |
| Cooke, Charles Spurgeon, | Arts, | Chapel Hill. |
| Craven, James Rowland, | Arts, | Charlotte. |
| Craver, Henry Cleveland, | Arts, | Lexington. |
| Crutchfield, William Jesse, | Arts, | Greensboro. |
| Daniel, James Manly, Jr., | Arts, | Denton. |
| Denton, Beecher Tate, | Arts, | Charlotte. |
| Doub, Henry Ward, | Arts, | Tobaccoville. |
| Drane, Frederick Blount, | Arts, | Edenton. |
| Falkener, William White, | Arts, | Warrenton. |
| Fenner, James Paull, | Arts, | Raleigh. |

Folger, Alonzo Dillard,	Arts,	Dobson.
Freeman, Robert Alexander,	Arts,	Dobson.
Graham, Alexander Hawkins,	Arts,	Hillsboro.
Graham, Augustus Washington, Jr.,	Arts,	Oxford.
Graves, William,	Arts,	Mount Airy.
Gwynn, Price Henderson, Jr.,	Arts,	Leaksville.
Halliburton, John Brevard,	Arts,	Charlotte.
Hanes, Robert March,	Arts,	Winston-Salem.
Hendrix, William Franklin,	Arts,	Unionville.
Henry, Vance,	Arts,	Lilesville.
Higgins, Carlisle,	Arts,	Eunice.
Hooker, Frank Bruce,	Arts,	Greenville.
Hossfeld, Frederick William, Jr.,	Arts,	Morganton.
Hossfeld, William Emil,	Arts,	Morganton.
Isley, Blake Elliott,	Arts,	Burlington.
James, Fairley Patterson,	Arts,	Laurinburg.
Johnson, Clarence Walton,	Arts,	Four Oaks.
Johnston, Leslie Newcurk,	Arts,	Wilmington.
Kenyon, John Rockwell,	Arts,	Newton.
A. B., 1911, Catawba College.		
Lanier, James Conrad, Jr.,	Arts,	Greenville.
Lassiter, Jesse Cleveland,	Arts,	Julian.
Lockhart, John Clegg,	Arts,	Chapel Hill.
McAden, Joel Jenkins,	Arts,	Charlotte.
McIver, Monroe Anderson,	Arts,	Gulf.
McLean, John Duncan,	Arts,	Vass.
McLean, Robert Clay,	Science,	Brevard.
Marrow, Henry Burwell,	Arts,	Henderson.
Moore, William Peter,	Arts,	Fonta Flora.
Morgan, Lawrence Nelson,	Arts,	Goldsboro.
Morris, James Ward, Jr.,	Arts,	Tampa, Fla.
Murchison, David Reid,	Arts,	Wilmington.
Norman, Clarence Edward,	Arts,	Concord.
Orr, James Lawrence,	Arts,	Mars Hill.
Parish, Henry Lynch, Jr.,	Science,	Hillsboro.
Parker, Samuel Green,	Arts,	Kinston.
Phillips, Samuel Dickson,	Arts,	Meredith, Fla.
Pittman, Columbus Washington Eagles,	Arts,	Whitakers.
Price, Thomas Moore,	Arts,	Madison.
Rand, James Hall,	Arts,	Smithfield.
Ra; Hubert Roy,	Arts,	Raleigh.
Reece, James Thaddeus,	Arts,	Yadkinville.
Riggs, Henry Eugene,	Arts,	Dobson.
Roberson, Charles Abram,	Arts,	Robersonville.

Rogers, William White,	Arts,	Timberlake.
Royster, Thomas Sampson,	Arts,	Townsville.
Slade, Thomas Bog, Jr.,	Science,	Hamilton.
Sloan, Jesse Richardson,	Arts,	Franklin.
Stacy, Lucius Eugene, Jr.,	Arts,	Rutherfordton.
Teague, Claude Edward,	Arts,	Cameron.
Thomas, Charles Randolph, Jr.,	Science,	Newbern,
Van Poole, Robert Linn,	Arts,	Salisbury.
Wang, Lingoh,	Arts,	Peking, China.
Wharton, Cyrus Richard,	Arts,	Gibsonville.
Whitaker, John Clarke,	Arts,	Winston-Salem.

Junior Class

Alderman, Ernest Hamblin,	Arts,	Greensboro.
Bagwell, James Edgar,	Arts,	Loray.
Barbour, Swade Emmette,	Science,	Clayton.
Basnight, Stein Hughes,	Arts,	Newbern.
Bellamy, Emmett Hargrove,	Arts,	Wilmington.
Bennett, Paul Archer,	Arts,	Winston-Salem.
Bivens, Samuel Robert,	Arts,	Monroe.
Blalock, David Remus,	Arts,	Rougemont.
Boushall, Joseph Dozier, Jr.,	Arts,	Raleigh.
Brown, Charles Edward,	Arts,	Belcross.
Bryan, Paul Roby,	Science,	Goldsboro.
Busby, John Carroll,	Arts,	Salisbury.
Caldwell, Joseph Yongue,	Arts,	Statesville.
Carmichael, George,	Arts,	Wilmington.
Carrington, George Lunsford,	Arts,	Durham.
Carter, Carnie Blake,	Science,	Morganton.
Carter, James Washington,	Arts,	Morganton.
Coble, Ralph Parker,	Science,	Liberty.
Cordon, Joseph Palamountain,	Science,	Clayton.
Coulter, Ellis Merton,	Arts,	Connelly Springs.
Coulter, Victor Aldine,	Science,	Newton.
Cowell, Charles Fowler,	Arts,	Washington.
Craig, Gillam,	Arts,	Monroe.
Euless, Fields Lilborn,	Arts,	Bell Buckle, Tenn.
Gattis, Samuel Mallette, Jr.,	Arts,	Hillsboro.
Gray, Robert Frederick,	Arts,	Wadesboro.
Hamilton, Alvah L.,	Arts,	Atlantic.
Hargrett, Hains Hilsman,	Arts,	Sylvester, Ga.
Harris, Elisha Carter,	Arts,	Elizabeth City.
Harry, Woodfin Grady,	Arts,	Grover.

Hart, Edwin Badger,	Science,	Louisburg.
Hatcher, Martin Armstead,	Arts,	Rose Hill.
Higdon, Fred Huffman,	Arts,	Higdonville.
Hoke, Clarence Ballew,	Science,	Lenoir.
Hoover, Troy Jay,	Arts,	High Point.
Huffman, Robert Obediah,	Arts,	Morganton.
Hunter, John Speight,	Arts,	Greensboro.
Ingram, Mitchell Ray,	Arts,	Taylorsville.
Isley, Robert Waldon,	Arts,	Liberty.
Joyner, Elisha Wiley,	Arts,	Nashville.
Jurney, Robert Campbell,	Arts,	Winston-Salem.
Kasey, Watson,	Arts,	Houston, Va.
Kennedy, Frank Hunter,	Arts,	Houstonville.
Kirksey, William Albert,	Arts,	Morganton.
Labberton, John Madison,	Science,	Winston-Salem.
McIver, John Wesley,	Science,	Sanford.
McKay, Arnold Artemus,	Arts,	Maxton.
Marks, Albert Rosenthal,	Arts,	Newbern.
Mebane, Banks Holt,	Arts,	Spray.
Morrison, Fred Wilson,	Arts,	Spencer.
Norwood, Thomas Hart,	Arts,	Goldsboro.
Page, Thaddeus Shaw,	Arts,	Biscoe.
Perkins, J. Theodore, Jr.,	Arts,	Morganton.
Perrett, Vergil Addison,	Arts,	Whitsett.
Petteway, Hubert Conner,	Arts,	Brooksville, Fla.
Petteway, Walter Raleigh,	Arts,	Tampa, Fla.
Phillips, Guy Berryman,	Arts,	Trinity.
Phillips, Jasper Louis,	Science,	Kinston.
Post, William Nicholas,	Arts,	Wilmington.
Quincy, Cary Perry,	Arts,	Merry Hill.
Ramsaur, Thomas Michael,	Arts,	China Grove.
Rankin, Edgar Ralph,	Arts,	Gastonia.
Rhodes, Leland Brown,	Science,	Chapel Hill.
Rights, Douglas Le Telle,	Arts,	Winston-Salem.
Ritch, Marvin Lee,	Arts,	Charlotte.
Royster, James Hunt,	Arts,	Townsville.
Scarborough, James Blaine,	Arts,	Mount Gilead.
Scott, Reece Webster,	Arts,	Monroe.
Shamburger, Lacy Lee,	Arts,	Biscoe.
Shofner, Howard Bently,	Arts,	Shelbyville, Tenn.
Sisk, Horace,	Arts,	Waco.
Smith, Peyton McGuire,	Arts,	Elizabeth City.
Spears, Marshall Turner,	Arts,	Lillington.
Stephenson, Brevard Doty,	Arts,	Charlotte.

U. N. C.

Stokes, Walter, Jr.,	Arts,	Nashville, Tenn.
Strange, Robert, Jr.,	Arts,	Wilmington.
Taylor, Alexander,	Arts,	Morganton.
Tillett, William Smith,	Arts,	Charlotte.
Totten, Henry Roland,	Arts,	Yadkin College.
Townsend, Jackson,	Arts,	Marietta.
Tunis, Charles White,	Science,	Norfolk, Va.
Walker, Daniel Joshua,	Arts,	Union Ridge.
Wiggins, Archibald Lee Manning,	Arts,	Durham.
Williams, Isham Roland,	Arts,	Faison.
Wilson, Albert Robert, Jr.,	Arts,	Greensboro.
Wilson, George Pickett,	Arts,	Soudan, Va.
Winston, Robert Watson, Jr.,	Arts,	Raleigh.
Workman, John Hilary Albert,	Arts,	Cherryville.

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Sophomore Class

Abernethy, Lonnie Lee,	Science,	Charlotte.
Allen, Reynold Tatum,	Arts,	Kinston.
Allred, Joseph Henry,	Arts,	Mount Airy.
Andrews, Troy Monroe,	Arts,	Chapel Hill.
Angel, Lewis,	Arts,	Franklin.
Applewhite, Blake Deans,	Arts,	Wilson.
Armfield, Roy Hanes,	Science,	Greensboro.
Askew, Grady Daniel,	Arts,	Harrellsville.
Axley, Lowry,	Arts,	Murphy.
Aycock, Benjamin Franklin,	Arts,	Fremont.
Battle, James Wilson,	Arts,	Montgomery, Ala.
Bell, Reuben Holland,	Arts,	Swan Quarter.
Blackstock, Clarence Ernest,	Arts,	Weaver ville.
Blalock, Merritt Edward, Jr.,	Science,	Norwood.
Bonner, Octavius Blanchard,	Arts,	Chapel Hill.
Broadfoot, Henry Bryan,	Arts,	Black Mountain.
Brownson, Allyn Raymond,	Science,	Asheville.
Burch, Philip,	Arts,	Sellers, S. C.
Burke, James Preston,	Arts,	Bessemer City.
Cansler, John Scott,	Arts,	Charlotte.
Carlton, David Hill,	Arts,	Wilkesboro.
Chambers, Joseph Lenoir, Jr.,	Arts,	Charlotte.
Clark, Daniel Russell,	Arts,	Tarboro.
Clark, George Thomas,	Arts,	Wilmington.
Cobb, Collier, Jr.,	Arts,	Chapel Hill.
Collins, Hubert Walter,	Science,	Holly Springs.
Conroy, Frank Davies,	Science,	Cullowhee.

Cox, Clifford Newton,	Arts,	Ashboro.
Cox, Henry Leon,	Science,	Cullowhee.
Credle, William Frontis,	Science,	Swan Quarter.
Darden, Paul Clifford,	Arts,	Fremont.
Deans, Archie Battle,	Arts,	Wilson.
Drew, George Frank,	Arts,	Live Oak, Fla.
Dunnagan, Macon Rush,	Arts,	Yadkinville.
Edwards, Wiley Benjamin,	Science,	Wilson.
Eldridge, James,	Arts,	Dunn.
Eley, Clayton Willard,	Science,	Menola.
Erwin, Roy Vance,	Arts,	Bell Buckle, Tenn.
Feezor, John Gilmer,	Arts,	Silver Hill.
Ferguson, Thomas Wiley,	Arts,	Kendal.
Flume, Arthur James,	Science,	Palatine Bridge, N.Y.
Furgerson, Henry Beauregard, Jr.,	Science	Halifax.
Gentry, John Robert,	Arts,	Waynesville.
Gibbs, Cecil Norwood,	Science,	Lake Landing.
Green, Charles Benjamin,	Science,	Kittrell.
Griffith, Charles Manly, Jr.,	Arts,	Thomasville.
Guthrie, Thomas Claiborne, Jr.,	Science,	Charlotte.
Hanes, John Wesley,	Arts,	Winston-Salem.
Hardin, Edward Manning,	Science,	Wilmington.
Hart, Meade,	Arts,	Mooresville.
Hartley, Samuel Grady,	Science,	Yadkin College
Holmes, John Albert,	Arts,	Graham.
Holmes, Ralph Wendell,	Arts,	Graham.
Holton, George Ricks,	Arts,	Winston-Salem.
Horton, Joseph Lloyd,	Arts,	Farmville.
Hughes, Thomas Spurgeon,	Arts,	Elizabeth City.
James, Albert Warren,	Arts,	Laurinburg.
Johnston, Lemuel Ray,	Arts,	Haw River.
Jones, Troy Isaiah,	Arts,	Helton.
Joyner, Andrew, Jr.,	Arts,	Greensboro.
Kelly, Donald George,	Arts,	Clarkton.
Kelly, James Clyde,	Arts,	Carthage.
Knowles, Daniel Lamont,	Arts,	Mount Olive.
Lasley, Robert Law,	Arts,	Wentworth.
Leach, Oscar,	Arts,	Raeford.
Lee, James Grover,	Arts,	Roxboro.
Lee, Joseph Ira,	Arts,	Four Oaks.
Little, Calvin Myers,	Arts,	Charlotte.
Long, Albert Anderson,	Arts,	Farmington.
Long, Henry Cyrus, Jr,	Arts,	Charlotte.
Long, Willie Jones,	Arts,	Garysburg.

Lord, William Campbell,	Arts,	Wilmington.
Lynch, John Franklin,	Arts,	Burlington.
Lyon, William Elkanah,	Arts,	Hester.
McEachern, Archibald McLeod,	Science,	Jacksonville, Fla.
McIntosh, John William,	Arts,	Denver.
McKay, William Peter,	Science,	Red Springs.
McKnight, Roy Bowman,	Arts,	Charlotte.
McWhorter, Davis Lee,	Arts,	Rocky Mount.
Mease, Hugh,	Arts,	Canton.
Millender, Charles White,	Arts,	Asheville.
Oates, Malcolm Norval,	Arts,	Charlotte.
Oates, William Clyde,	Science,	Grover.
Overcash, James Oliver, Jr.,	Arts,	Statesville.
Owen, Frank Redding,	Arts,	Yadkin College.
Parker, Ezra,	Arts,	Benson.
Parker, John Lloyd,	Science,	Ahoskie.
Parker, Samuel Iredell,	Science,	Monroe.
Parker, Walker Rea,	Arts,	Goldsboro.
Partrick, Theodore Hall, Jr.,	Arts,	Hamlet.
Pate, James Gibson,	Science,	Gibson.
Peel, Elbert Sidney,	Arts,	Williamston.
Pell, Jesse Shepherd,	Arts,	Spartanburg, S. C.
Pember, Howard Stephen,	Science,	Walpole, Mass.
Pendergraph, Henry Austen,	Arts,	Durham.
Perry, Edwin Jerry,	Arts,	Wilson.
Pitt, William Franklin,	Arts,	Macclesfield.
Pratt, Madison Hampton,	Arts,	Madison.
Price, Lemuel Alexander,	Arts,	Unionville.
Pritchard, William Nelson, Jr.,	Science,	Chapel Hill.
Pritchett, James Turner,	Arts,	Lenoir.
Pugh, Jesse Forbes,	Arts,	Old Trap.
Ranson, Lucius Henry,	Arts,	Huntersville.
Ray, Robert Marshall,	Arts,	Oxford.
Reed, Ralph Augustus,	Arts,	Winston-Salem.
Roberson, John Glenn,	Arts,	Chapel Hill.
Roberts, Jesse Lee,	Arts,	Wentworth.
Robinson, Melvin,	Arts,	Atlantic.
Ross, John Robert,	Arts,	Charlotte.
Royall, Kenneth Claiborne,	Arts,	Goldsboro.
Sawyer, Roland Mack,	Arts,	Elizabeth City.
Schultz, Alfred Mark,	Arts,	Greenville.
Scott, Robert Lee,	Arts,	Greensboro.
Sears, Benjamin Belver,	Science,	Como.
Sherrod, Watson Newberry,	Arts,	Enfield.

Shuford, Norman Clifford,	Arts,	Fairview.
Sisk, Hudson Claude,	Arts,	Waco.
Sloan, Harold Thomas,	Arts,	Franklin.
Smith, Junius McRae,	Science,	Charlotte.
Spence, Ralph Case,	Arts,	Kipling.
Story, Thomas Edgar,	Arts,	Blowing Rock.
Strayhorn, Isaac Richerson,	Arts,	Durham.
Strong, George Vaughan,	Arts,	Raleigh.
Struthers, James Arthur,	Science,	Grist.
Stubbs, Harry Murden,	Arts,	Williamston.
Swindell, Lewis Holmes, Jr.,	Science,	Swan Quarter.
Taylor, Carl Duffy,	Science,	Newbern.
Thompson, William Clark,	Arts,	Lewiston.
Townsend, William Bartel,	Arts,	Red Springs.
Tyson, John Grover,	Arts,	Goldsboro.
Vann, Norman St. George,	Arts,	Charlotte.
Walker, John Alfred,	Science,	Germanton.
Weaver, Fleming Ross,	Science,	Greensboro.
Webster, Felix Litaker,	Arts,	Wilkesboro.
Whitaker, William Pell, Jr.,	Arts,	Durham.
Whiting, Seymour Webster,	Arts,	Raleigh.
Willis, Henry Stuart Kendall,	Arts,	High Point.
Worth, Alexander McAlister,	Arts,	Ashboro.
Young, William Beauregard, Jr.,	Arts,	Wilson.

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Freshman Class

Abernethy, Richard Blythe, Jr.,	Science,	Charlotte.
Arrington, William Matthew,	Arts,	Mount Airy.
Austin, Dewitt Ray,	Science,	Charlotte.
Auten, John Nathaniel,	Science,	Charlotte.
Azpiazu, Justa Angel,	Science,	Chaparra, Cuba.
Bailey, Kenneth Hubert,	Arts,	Wakefield.
Barnes, Hugh Albert,	Arts,	Maxton.
Barnes, Vernon Meredith,	Science,	Taylor.
Baugham, William Edward,	Arts,	Washington.
Bell, Daniel Long,	Arts,	Graham.
Belvin, Edward Dobbin,	Arts,	Raleigh.
Black, Hoke Barrymore,	Arts,	Greenville, S. C.
Blackmer, Sidney Alderman,	Arts,	Salisbury.
Blakeney, Anthony Kennedy,	Arts,	Kershaw, S. C.
Blue, Luther Avon, Jr.,	Arts,	Wilmington.
Boseman, Claud Alfred,	Arts,	Enfield.
Bost, Berry Buford,	Arts,	Matthews.

Boushall, Thomas Callendine,	Arts,	Raleigh.
Brinkley, Robert Lloyd,	Arts,	Elm City.
Brown, Rowland Angus,	Arts,	Red Springs.
Bryan, Joseph Shepard,	Arts,	Scott's Hill.
Bulluck, Jesse Davis,	Arts,	Bethel.
Byrd, Bacchus Bright,	Science,	Swiss.
Campbell, Edgar Thomas,	Arts,	Jessama.
Canady, Claude Carl,	Arts,	Benson.
Cantwell, Richard Willard,	Arts,	Wilmington.
Carr, Austen Heaton,	Arts,	Durham.
Carr, Matthew Lee,	Science,	Farmville.
Carroll, Hardy Abram,	Arts,	Mizpah.
Carter, Frank Winfred,	Arts,	Maxton.
Clinard, Daniel Elwood,	Arts,	Winston-Salem.
Coats, Robert Floyd,	Arts,	Angier.
Coffey, Charles Donald,	Arts,	Wilkesboro.
Conrad, Edwin Fuller,	Arts,	Winston-Salem.
Conrad, Howard Clarence,	Arts,	Pfafftown.
Cox, James Marmaduke,	Arts,	Norfolk, Va.
Cox, Russell Mills,	Science,	Washington.
Craven, Thomas,	Arts,	Charlotte.
Crawford, Dudley Warner,	Arts,	Sugar Hill.
Crawford, John Robert, Jr.,	Arts,	Goldsboro.
Cummings, Alfred Ewing,	Arts,	Winston-Salem.
Davis, Lee Roy,	Arts,	Bladenboro.
Day, John Tucker,	Arts,	Walkertown.
Dickson, James Gillespie,	Arts,	Raeford.
Downing, Frederick Blair,	Arts,	Carthage.
Dunbar, Wade Stafford,	Arts,	Oak Ridge.
Edgerton, Earlie Dock,	Arts,	Fremont.
Edgerton, Gurney Edvertt,	Arts,	Fremont.
Edwards, Opie Gray,	Science,	Spring Hope.
Ervin, Carl Edgar,	Science,	Troutmans.
Eutsler, George Willard,	Arts,	Greensboro.
Faison, Ferdinand Johnson,	Science,	Clinton.
Farmer, Patrick O'Brien Robinson,	Arts,	Mount Olive.
Farrior, Kenneth McKinnon,	Science,	Chapel Hill.
Field, Bascom Lee,	Science,	Climax.
Fitzgerald, Robert Greeson,	Arts,	Linwood.
Forney, Adger Carter,	Science,	Greensboro.
Foust, Henry Price,	Arts,	Greensboro.
Fulcher, Manly,	Arts,	Atlantic.
Fuller, Walter Pliny,	Arts,	Bradentown, Fla.
Gaither, Alfred Long,	Arts,	Statesville.

Gayle, Sidney Alexander,	Arts,	Greensboro.
Giles, John Wilson,	Science,	Reidsville.
Gilman, Anthony Etheridge,	Arts,	Jacksonville.
Graves, Henry Lewis,	Arts,	Carthage.
Griswold, William Shepard,	Arts,	Durham.
Guthrie, Wilson Gregory,	Science,	Charlotte.
Hackney, Willis Douglas, Jr.,	Arts,	Wilson.
Hall, Claud Tip,	Arts,	Woodsdale.
Hamilton, Ammie Bernis,	Arts,	Atlantic.
Hamilton, Luther,	Arts,	Atlantic.
Hamilton, Oliver Spinks,	Arts,	Unionville.
Harden, Graham,	Arts,	Burlington.
Harding, William Renney,	Arts,	Yadkinville.
Harper, Allen Bostic,	Arts,	Chapel Hill.
Harper, George Arthur,	Science,	Chapel Hill.
Harper, Luby Alexander,	Arts,	Greenville.
Harrell, William Henry,	Arts,	Williamston.
Hart, Julian Gilliam,	Science,	Louisburg.
Hatch, Aubrey Carlisle,	Science,	Mount Olive.
Higdon, Madison Vespucius,	Arts,	Deets.
Hill, Thomas Fuller,	Arts,	Durham.
Hine, Berlie Lee,	Arts,	Winston-Salem.
Hoggard, William Vance,	Science,	Aulander.
Holder, Brantson Beeson,	Arts,	Walkerton.
Holland, Curtis Avent,	Arts,	Greensboro.
Holmes, James Eugene,	Arts,	Graham.
Horton, Albert Graham,	Arts,	Wakefield.
Hough, Ernest,	Science,	Brandy Station, Va.
Houston, Robert Stroud,	Science,	Monroe.
Hughes, James Boettner,	Arts,	Black Mountain.
Huske, William Oliver,	Science,	Fayetteville.
Irvin, Alexander Galloway,	Arts,	Reidsville.
Isley, Chris Leonard, Jr.,	Arts,	Burlington.
Jeffreys, James Talbot,	Arts,	Goldsboro.
Johnston, Charles Louis,	Science,	White Springs, Tenn.
Johnston, Julius, Jr.,	Arts,	Yanceyville.
Jones, James Newton,	Arts,	Graham.
Jones, Leslie Edward,	Arts,	Swan Quarter.
Jumper, Millard Bishop,	Arts,	Chapel Hill.
Keesler, Edward Yates,	Arts,	Charlotte.
Killeffer, David Herbert,	Science,	Bradentown, Fla.
Kornegay, Wade,	Arts,	Dover.
Kurfees, Clifton Samuel,	Arts,	Germantown.
Lambert, Gabriel deLono,	Arts,	High Point.

Lambert, Henry Dionysus,	Arts,	Angier.
Latham, James Oliver,	Arts,	Huntsville, Ala.
Leak, James Augustus, Jr.,	Arts,	Wadesboro.
Lee, Charles Dennis,	Arts,	Faison.
Lilly, Edmund Jones, Jr.,	Science,	Fayetteville.
Lilly, Thomas Baxter,	Science,	Mount Gilead.
Lindau, Sigmund Baach,	Science,	Greensboro.
Lipscombe, Sterling Albert,	Arts,	Durham.
Little, Robert Eugene, Jr.,	Arts,	Wadesboro.
Lovelace, Oscar Newton,	Arts,	Mooreboro.
Lupton, Edward Willis,	Science,	Swan Quarter.
Lusby, Horace,	Science,	Lewisburg, Tenn.
McArthur, David McPherson,	Arts,	Red Springs.
McCall, Fred Bays,	Arts,	Charlotte.
McCants, John Marion,	Science,	Guthriesville, S. C.
McIver, John McMillan, Jr.,	Arts,	Gulf.
McLamb, Alphonzo,	Arts,	Huntley.
McLeod, Walter Guy,	Science,	Maxton.
McQuage, Oliver Cromwell,	Arts,	Salisbury.
Mallett, James Reginald,	Arts,	Salisbury.
Mangum, Charles Preston,	Science,	Kinston.
Manning, Frederick Cain,	Arts,	Durham.
Marshburn, Owen Meredith,	Arts,	Eagle Rock.
Martin, Dennis Raymond,	Science,	Elizabeth City.
Martin, Grover Adlai,	Arts,	East Bend.
Martin, Harry Augustus,	Science,	Asheville.
Maxwell, William Owen Baldwin,	Arts,	Charlotte.
May, Frederick Hamilton,	Arts,	Wendell.
Mayo, John, Jr.,	Arts,	Bethel.
Mebane, George Allen, Jr.,	Arts,	Spray.
Merriman, William Leonard,	Arts,	Wilmington.
Michal, Thomas Lenoir,	Science,	Canton.
Milburn, Thomas Yancey,	Science,	Washington, D. C.
Moore, David Columbus, Jr.,	Arts,	Greenville.
Morehead, John Lindsay,	Arts,	Spray.
Moser, John William,	Arts,	Rural Hall.
Nance, Ophir Carmal,	Arts,	High Point.
Newsom, Albert Ray,	Arts,	Marshville.
Nisbet, Gilmore Lynn,	Arts,	Waxhaw.
Nunn, William Snow,	Arts,	Kinston.
Oates, Thomas Frank,	Arts,	Grover.
Odom, John Daffin,	Arts,	Rocky Mount.
Oldham, Ralph Waldo,	Science,	Raleigh.
Outlaw, Alexander Bate,	Arts,	Elizabeth City.

Owen, William Mansfield,	Arts,	Yadkin College.
Parker, Benjamin Carl,	Arts,	Monroe.
Parker, Roscar Edward,	Arts,	Selma.
Parrott, Mercer Cranor,	Arts,	Kinston.
Paty, B. F.,	Arts,	Tullahoma, Tenn.
Peterson, Don Thurman,	Arts,	Day Book.
Phelps, James Solomon,	Science,	Clemmons.
Pope, Emmett Judson,	Arts,	Mount Olive.
Prevatt, Joseph Robert,	Arts,	Lumberton.
Price, James Valentine, Jr.,	Arts,	Madison.
Pruden, William Dossey, Jr.,	Arts,	Edenton.
Ragland, William Trent,	Arts,	Salisbury.
Reid, William Kirkpatrick,	Arts,	Gastonia.
Rhodes, William Henry, Jr.,	Arts,	Chapel Hill.
Robinson, Clarence,	Arts,	Atlantic.
Rouse, Robert Harper,	Arts,	Kinston.
Rowe, Joseph Vance,	Arts,	Small.
Sahag, Leon Maroot,	Science,	Teheran, Persia.
Scott, Samuel Floyd,	Arts,	Haw River.
Sheppard, Roland Watts,	Arts,	Sanford.
Sherrin, Marshall Boyce,	Arts,	Wingate.
Shoaf, Royal Grady,	Arts,	Lexington.
Sigler, William Montague,	Science,	Pinners, Va.
Sinclair, John Frank,	Arts,	Maxton.
Singleton, Herbert James,	Arts,	Red Springs.
Sloan, Charles Austin,	Arts,	Garland.
Smith, Claiborne Thweatt,	Arts,	Scotland Neck.
Smith, Edward Chambers, Jr.,	Arts,	Raleigh.
Smith, Major Thomas,	Arts,	Reidsville.
Stacy, John Benton,	Arts,	Ruffin.
Stanford, William Raney,	Arts,	Teer.
Stein, Lewis Jacob,	Arts,	Wilmington.
Stewart, Joseph Arrowood,	Arts,	Matthews.
Stokes, Percy Bethel,	Science,	Reidsville.
Stroup, Matthew Augustus,	Arts,	Cherryville.
Strupe, Walter Thomas,	Arts,	Bethania.
Stryon, Arthur Herman,	Arts,	Wilmington.
Tamraz, John Moorhaj,	Science,	Tabriz, Persia.
Tate, Millard Fillmore,	Science,	Marion.
Taylor, John Douglas, Jr.,	Arts,	Wilmington.
Taylor, William Raymond,	Arts,	Louisburg.
Thigpen, Frank Lafayette,	Science,	Tarboro.
Thomas, Alonzo, Jr.,	Science,	Beaufort.
Thomas, William Wayt,	Arts,	Charlotte.

Thompson, Earle Hinson,	Arts,	Wilmington.
Thompson, William Reid,	Arts,	Teer.
Thorp, William Lewis, Jr.,	Arts,	Rocky Mount.
Tilley, Edward Lloyd,	Science,	Bahama.
Tolson, Henry Albert,	Arts,	Newport.
Turlington, Jesse Eli,	Arts,	Benson.
Twine, Bertram Edward,	Arts,	Edenton.
Waldrop, George Robert,	Arts,	Rutherfordton.
Walke, William Capehart,	Science,	Avoca.
Walker, Henry Grady,	Science,	Poplar Branch.
Walton, Basil Manly,	Arts,	Morganton.
Warlick, William Farel,	Arts,	Reepsville.
Weatherly, Albert Thomas,	Arts,	Gorman.
Weeks, Willie Person Mangum,	Arts,	Trinity.
Welborn, Henry Fuller,	Arts,	Farmer.
Wellons, Benjamin Fletcher,	Arts,	Smithfield.
West, Clifton Forrest,	Science,	Dover.
Whitaker, George Betton,	Arts,	Winston-Salem.
Whitaker, Thomas Bascom,	Arts,	Oak Ridge.
Whitaker, Zack Lanier,	Arts,	Oak Ridge.
White, Paul Linwood,	Arts,	Scotland Neck.
Whitfield, James Vivian,	Arts,	Wallace.
Wilkins, John Allen,	Arts,	Draughton.
Williams, Warren Rand,	Science,	Sanford.
Woollcott, Phillip,	Arts,	Raleigh.
Yelverton, Richard Becton,	Science,	Fremont.
Yelverton, Roy Lee,	Science,	Fremont.

Special Students

Alexander, William Trimigan,	Special,	Creswell.
Anderson, William Hubert,	Elect. Med.,	Mars Hill.
Bailey, Isaac Mayo,	Elect Law,	Smithfield.
Bailey, Tyra Clingman,	Elect. Med.,	Kenly.
Barker, Ebbie Basil,	Elect. Med.,	Trenton.
Beam, William Speight,	Elect Law,	Shelby.
Blanton, Lawton,	Elect. Teach.,	Shelby.
Burrus, Thomas Preston,	Elect. Med.,	Fairfield.
Coffin, William Edwin, Jr.,	Special,	Greensboro.
Crouch, Auley McRae,	Elect. Med.,	Roberdel.
Flippin, Eugene,	Elect. Med.,	Mount Airy.
Griffin, Mark Alexander,	Elect. Med.,	Wingate.
Hummell, Leslie Ray,	Elect Law,	Goldsboro.
Hunter, Dewitt Talmage,	Elect. Med.,	Matthews.

Jackson, Walter Edgar,	Elect. Med.,	Hertford.
Jennings, Olin Henry,	Elect. Med.,	Poors Knob.
Kanner, Abraham Otto,	Elect. Law,	Sanford, Fla.
Kritzer, Henry Rowland,	Elect. Med.,	Spencer.
Langston, Charles Ernest,	Elect. Med.,	Winterville.
Long, Roy Hamilton,	Elect. Med.,	Monroe.
McKenzie, Benjamin Whitehead,	Elect. Med.,	Salisbury.
Mallett, John Percy,	Elect. Law,	Salisbury.
Moore, Allen Hoyt,	Elect. Med.,	Washington.
Moore, Julian Eugene,	Elect. Med.,	Wadesboro.
Nelson, Charles Ethridge,	Elect. Teach.,	Murfreesboro.
Oppenheimer, William L.,	Elect. Med.,	Rocky Mount.
Parshley, Anthony Roberts,	Elect. Ministry,	Hertford.
Paul, John Daniel,	Elect. Law,	Pungo.
Payne, Lewis Banks,	Elect. Med.,	Norfolk, Va.
Phillips, Jefferson Haywood,	Elect. Teach.,	Wakefield.
Ray, Ritz Clyde,	Elect. Med.,	Beaver Creek.
Russell, William Kitchen,	Elect. Med.,	Oriental.
Shorr, Abraham,	Elect. Med.,	Brooklyn, N. Y.
Smith, John Leroy,	Elect. Teach.,	Jamesville.
Spencer, Marc,	Elect. Mining,	Lexington, Va.
Stacy, Mary Martha,	Elect. Teach.,	Rutherfordton.
Starr, Henry Frank,	Elect. Med.,	Salisbury.
Stockard, Tracy,	Elect. Med.,	Reidsville.
Summers, Rachel Lawrence,	Special,	Statesville.
Swink, Jonas Herman,	Elect. Finance,	Woodruff, S. C.
Turnage, Allen Hal,	Special,	Farmville.
Uzzle, Edward Foy,	Elect. Med.,	Raleigh.
Wall, LeRoy Byron,	Elect. Law,	Tobaccoville.
Winters, Sellie Robert,	Elect. Journ.,	Stem.
Yelverton, Emmor Harrison,	Special,	Goldsboro.

Senior Students in Law

Baker, Baxter Lloyd,	Paw Creek.
A. B., 1907, Erskine College.	
Bauguess, Walter Raleigh,	Jefferson.
Bocock, James Branch,	Chapel Hill.
LL. B., 1906, Georgetown University.	
Broadfoot, Charles Wetmore, Jr.,	Fayetteville.
Burgwin, Kenneth Ogden,	Pittsburgh, Pa.
Cansler, Edwin Thomas, Jr.,	Charlotte.
Coughenour, William Chambers, Jr.,	Salisbury.
A. B., 1908.	

Ellington, Kenneth Raynor,	Clayton.
Hogue, Cyrus Dunlap,	Chapel Hill.
A. B., 1909, University of the South.	
MacLean, John Allan, Jr.,	Maxton.
McLendon, Lennox Polk,	Wadesboro.
B. S., 1910, North Carolina College of Agriculture and Mechanic Arts.	
Nichols, Spencer Van Bokkelen,	Wilmington.
Patterson, James Southerland,	Chapel Hill.
A. B., 1910.	
Rhodes, William Henry,	Riverdale.
Shore, William Thomas,	Charlotte.
S. B., 1905.	
Strange, Robert Wright,	Wilmington.
Vogler, Charles Alexander,	Winston-Salem.
A. B., 1911.	
Volz, Frederick Mills,	Staunton, Va.
LL. B., 1911, Washington and Lee University.	
Whitehurst, Robert Emmett,	Newbern.
Williams, Henry Elliott,	Linden.

Junior Students in Law

Alexander, Odom,	Charlotte.
A. B., 1911.	
Allen, Connor Middleton,	Kinston.
Bailey, Karl Braswell,	Elm City.
A. B., 1911.	
Battle, John Manning,	Rocky Mount.
A. B., 1911.	
Burgess, Caleb Kight,	Old Trap.
Byrd, William Bobbitt,	Asheville.
Childs, Wade Hampton,	Lincolnton.
Crouse, David Stowe,	Lincolnton.
Daniel, Watson Louis,	Winton.
DeLaney, Ernest Stanhope,	Matthews.
A. B., 1910.	
Fentress, Baxter Lee,	Summerfield.
A. B., 1910.	
Flanner, William Bennett, Jr.,	Newbern.
Freeman, Robert Alexander,	Dobson.
Grindstaff, Charles Smith,	Sylva.
Henry, Vance,	Lilesville.
Hines, John Edward,	Polloksville.
Hudson, James Giles,	Spencer.

Irby, Gary Pope,
Johnston, John Thomas,
Jones, Ovid Winfield,
A. M., 1909.

King, Robert Ruffin, Jr.,
Lamb, Luke,
Leary, Ernest Woodard,
Lee, Joseph Raymond,
A. B., 1911.

McCulloch, Edgar Franklin, Jr.,
Manning, John Hall,
A. B., 1909.

Mason, George Bason,
Morris, James Ward, Jr.,
Nooe, Bennet, 3d.,
Parker, Young Zorobabel,
Paul, John Daniel,
Sanders, William Ransom,
Shipp, Robert Johnston,
Small, Walter Lowry,
A. B., 1911.

Stockton, Richard Gordon,
A. B., 1911.

Wallace, Fitzhugh Ernest,
Ward, George Hahn,
Warlick, Wilson Lee,
B. S., 1910, Catawba College.

Warren, Lindsay Carter,
Wiley, Samuel Hamilton,
Wood, Eugene Herbert,
B. S., 1909, Clemson College.

Woodard, William Coleman, Jr.,
A. B., 1908.

Woody, Thomas Brooks,
Zollicoffer, Jere Perry,
A. B., 1911.

Laurens, S. C.
Chapel Hill.
Winston-Salem.

Greensboro.
Williamston.
Edenton.
Faison.

Fayetteville.
Durham.

Gastonia.
Tampa, Fla.
Pittsboro.
Selma.
Pungo.
Smithfield.
Newton.
Elizabeth City.

Winston-Salem.

Kenansville.
Waynesville.
Newton.

Washington.
Salisbury.
Gaffney, S. C.

Rocky Mount.

Bethel Hill.
Henderson.

Special Students in Law

Alexander, Milton T.,
Carpenter, Jesse Earl,
Cooper, Gordon Bennett,
Daughtridge, John Clarence,
Dorsett, Henry Grady,
Dupree, Franklin Tell,

Creswell.
Trinity.
Clinton.
Rocky Mount.
Chapel Hill.
Cardenas.

Hannah, Harry Burgwyn,	Siler City.
Johnson, Cyrus Murray,	Goldsboro.
Long, Thomas Sparrow,	Lake Landing.
McCargo, Thomas Bouldin, Jr.,	Mount Airy.
Moore, Clayton,	Williamston.
Smith, William Alexander, Jr.,	Hendersonville.
Stiers, Percy Townsend,	Wentworth.
Wells, Loyd Armstrong,	Wilson.
Williams, Wade Hampton,	Hiddenite.
Willis, George Thomas,	Newbern.
Winston, Randall Avera,	Selma.
Wright, William Augustus,	Wilmington.

Students in Law—(Summer School)

Alexander, Howell Calhoun, LL. B., 1910, University of Tennessee.	Greensboro.
Austin, James Allen, LL. B., 1911.	New London.
Bellamy, Chesley Calhoun, A. B., 1909.	Wilmington.
Blackwelder, Barrie Bascom, A. B., 1906.	Hickory.
Buie, Dugald McRee,	Bell, Fla.
Conger, Henry Rutgers, A. B., 1899, Williams College, LL. B., 1902, Columbia University.	Tarboro.
Daniels, Carl Lehman,	Newbern.
Dockery, Henry Clay, Jr., A. B., 1909, Wake Forest College.	Rockingham.
* Dorsett, Henry Grady,	Chapel Hill.
Eason, Joseph Daniel, Jr., A. B., 1910.	Stantonsburg.
Edmonds, William Rufus, A. B., 1910.	Elkin.
Fry, Lillian,	Bryson City.
Giuliano, Joseph,	Chadbourn.
Goldstein, Robert Calman, A. B., 1909, Trinity College.	Asheville.
Guion, John Amos, A. B., 1910.	Newbern.
Head, James Felton,	Wilmington.
Helsabeck, Charles Robert,	Rural Hall.
* Johnston, John Thomas,	Chapel Hill.
Jones, William Francis,	Wilmington.
Kittrell, Robert Gilliam,	Tarboro.

*Also in regular attendance. Session 1911-1912.

* Long, Thomas Sparrow,	Lake Landing.
McLain, James Howard,	Rowland.
McLean, Richard Angus,	Lumberton.
McNairy, Wyatt McCoy,	Greensboro.
MacRae, Donald Conroy,	Chapel Hill.
A. B., 1909.	
Malone, Edwin Hutchinson,	Louisburg.
May, Tim Ansel,	Flats.
Moore, Thomas,	Webster.
Murray, Archie R.,	Burgaw.
Patrick, Ralph Clinton,	Gastonia.
Ray, Donald Fairfax,	Fayetteville.
A. B., 1909.	
Robinson, Russell Marable,	Goldsboro.
A. B., 1909.	
Rodman, William Blount, Jr.,	Charlotte.
A. B., 1910.	
Ruffin, Colin Bradley,	Tarboro.
A. B., 1909.	
Satchwell, Paul Deans,	Wilmington.
* Shore, William Thomas,	Charlotte.
S. B., 1905.	
* Small, Walter Lowry,	Elizabeth City.
A. B., 1911.	
Smith, Howell Lindsay,	Raleigh.
Stacy, Horace Edney,	Rowland.
A. B., 1910.	
Stewart, Roach Sidney,	Lancaster, S. C.
A. B., 1903.	
Turner, Oscar Blount,	Teachey.
Uzzell, Thomas Randolph,	Wilson.
Ward, William Ira,	Sweptonville.
Whitfield, Nathan Fitzhugh Lee,	Clinton.
Whitley, Henry Ward Beecher,	Monroe.
A. B., 1911, University of Tennessee.	
Williams, Clawson Lee,	Sanford.
A. B., 1911.	
Winslow, Francis Edward,	Hertford.
A. B., 1909.	
Woltz, Albert Edgar,	Chapel Hill.
A. M., 1907, Central University.	
* Woodard, William Coleman, Jr.,	Rocky Mount.
A. B., 1908.	

* Also in regular attendance, session 1911-1912.

Students in Medicine

Allison, James Richard, A. B., 1911.	Second,	Pisgah Forest.
Armstrong, Charles Wallace,	First,	Troy.
Baynes, Ralph Henry,	Second,	Hurdles Mill.
Belden, Louis deKeyser, S. B., 1910.	First,	Wilmington.
Belk, William Parks, A. B., 1911.	Second,	Charlotte.
Bell, Baxter Israel,	First,	Swan Quarter.
Bender, Ernest, Linwood,	Second,	Polloksville.
Blue, Alexander McNeill, A. B., 1911.	First,	Carthage.
Boykin, Irvine Manning,	Second,	Boykin, S. C.
Brackett, William Ernest,	First,	Lawndale.
Brandon, William Daniel Rockwell,	Second,	Statesville.
Burleson, William Brown,	Second,	Plumtree.
Covington, Thomas Thomas, Jr.,	First,	Laurinburg.
Elliott, Forrest,	First,	Shelby.
Falkener, William White,	First,	Warrenton.
Finch, Ollie Edwin,	First,	Kittrell.
Floyd, Fred Fritz,	Second,	Cherokee.
Francis, William Gifford,	First,	Waynesville.
Harris, John Warton, A. B., 1911.	First,	Reidsville.
Hege, John Roy,	First,	Winston-Salem.
Henderson, Clair Crouse,	Second,	Lowell.
House, Wooster Hassell,	First,	Stokes.
Kendrick, John Fox, Candidate for S. B. (Medical).	Second,	Rock Hill, S. C.
Lackey, Franklin Harris,	Second,	Fallston.
Lassiter, Chester Lawrence,	First,	Wilsons Mills.
Means, Paul Barringer,	Second,	Concord.
Milliken, James Shepard,	First,	Pittsboro.
Morrow, Thomas Lacy,	First,	Mebane.
Oliver, Adlai Stevenson,	Second,	Selma.
Pace, Karl Busbee,	Second,	Maxton.
Parrish, Robert Eunice,	Second,	Smithfield.
Petree, Paul Augustus,	Second,	Germanton.
Proctor, Ivan Marriott, Jr.,	First,	Raleigh.
Ray, Hickman,	First,	Raleigh.
Roberts, Grady Rudisill,	First,	Lincolnton.
Rodman, Nathaniel Fulford,	Second,	Norfolk, Va.

STUDENTS

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Rogers, David Eugene,	First,	Franklin.
Sample, Robert Cannon,	First,	Hendersonville.
B. S., 1911, Davidson College.		
Saunders, Sheldon Asa,	Second,	Aulander.
Shuford, Edwin Harold,	First,	Hickory.
Simmons, James Steven,	First,	Graham.
B. S., 1911, Davidson College.		
Sloan, David Bryan,	Second,	Ingold.
A. B., 1910.		
Sloan, William Henry,	First,	Garland.
B. S., 1910, Davidson College.		
Speight, James Ambler,	Second,	Whitakers.
Stevens, Ralph Edwin,	First,	Sanford, Fla.
Summey, Thomas Johnson,	First,	Brevard.
Sumner, Roy Dewitt,	First,	Fletcher.
Tolar, Julian Nolley,	First,	Sanford, Fla.
Turlington, Lee Franklin,	Second,	Mount Airy.
A. B., 1910.		
Venable, John Manning,	Second,	Chapel Hill.
A. B., 1910.		
Wakeley, William Easton,	First,	Orange, N. J.
Walker, John Barrett,	Second,	Union Ridge.
Warren, Andrew Jackson,	Second,	Hurdles Mill.
Wilkerson, Thaddeus Earl, Jr.,	Second,	Roxboro.
Candidate for S. B. (Medical).		

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Students in Pharmacy

Atwater, Garland Marvin,	Second,	Oxford.
Bennett, Kelly Edwin,	Second,	Bryson City.
Boon, Herman H.,	First,	Benson.
Bradsher, Lawrence Eugene,	First,	Roxboro.
Cassell, Arthur Samuel,	First,	North Wilkesboro.
Chesnutt, James Moseley,	First,	Hamlet.
Cox, Charles Lee,	First,	Warsaw.
Fetzer, Frank Goodson,	Second,	Wadesboro.
Futrelle, William Leon,	First,	Wilmington.
Hine, Ira Walter,	First,	Old Town.
Jones, Otis Vance,	First,	Swan Quarter.
Kyser, Edward Vernon,	First,	Rocky Mount.
Lunn, Frank Halliburton,	First,	Wilkesboro.
McGowan, Claudius,	First,	Greenville.
May, Thomas Hilliard,	First,	Louisburg.
Moore, John Craven,	First,	Elm City.
Mullen, Lester Boyd,	Second,	Huntersville.

Nicholson, Elliott Nolley,	First,	Murfreesboro.
Pittman, Elmer Jesse,	First,	Fairmont.
Reed, Charles Wingate,	First,	Washington, D. C.
Reins, Charles Cicero,	Second,	North Wilkesboro.
Rheinhardt, Charles Bais,	Second,	Asheville.
Rimmer, Eugene Freeland,	Second,	Hillsboro.
Rogers, Ralph Peel,	First,	Durham.
Sanford, Roger Derrick,	First,	Laurinburg.
Smith, Leon,	First,	Stanley.
Smith, William Oscar,	First,	Durham.
Stinson, Joseph Norwood,	Second,	Winston-Salem.
Sustare, Beverley Townsend,	First,	Matthews.
Webb, Alexander Grady,	Second,	Chapel Hill.
Whitehead, Jefferson Davis, Jr.,	Second,	Enfield.
Wilson, Lowry Reid,	First,	Gastonia.
Winstead, Lamar Herbert,	First,	Wilson.

SUMMER SCHOOL STUDENTS, 1911

Abernethy, Dora Elizabeth,	Chapel Hill.
Abernethy, Eoae J.,	Rutherford College.
Abernethy, Frances Trueheart,	Chapel Hill.
Ainsley, Howard M.,	Creswell.
Andrews, Clara,	Union Mills.
Archer, Frederick,	Wilson.
Atkinson, Dora,	Goldsboro.
Aycock, D. Pearl,	Micro.
Barker, Elsie G.,	Apex.
Barker, Gypsie Royall,	Durham.
Barnard, Maude,	Franklin.
Barnhill, Sallie Cooper,	Enfield.
Baucom, Eula,	Apex.
Baynes, Bessie,	Hurdles Mill.
Beam, William Speight,	Shelby.
Bennett, Agnes Louise,	Middleburg.
Bennett, Mrs. John T.,	Wadesboro.
Betts, Julia M.,	Baskerville, Va.
Beves, Lela,	Franklinton.
Bivens, Curtis Lee,	Cary.
Blanchard, Sarah Margaret,	Belvidere.
Blankenship, Ursula,	Charlotte.
Bourne, Mary P.,	Tarboro.
Boyce, Sarah Irena,	Rich Square.
Burrage, George C.,	Saluda.
Burrus, Mary B.,	Wanchese.
Burt, Mable P.,	Trenton.
Byerly, Girla D.,	Yadkin College.
Campbell, Edgar T.,	Jessama.
Canaday, Emily Jane,	Benson.
Carr, Jennie,	Enfield.
Clark, Nina,	Monroe.
Claytor, Margaret,	Chapel Hill.
Claytor, Robert Hume,	Chapel Hill.
Cook, Ollie,	Concord.
Cooke, Mary M.,	Rich Square.
Cox, Oliver Cromwell,	Leaksville.

Cox, Roella,
Costen, Mrs. T. W.,
Cothran, Allie,
Crumpler, Martha L.,
Cuthbertson, May,
Davenport, Aaron W.,
Davenport, Ruth,
Davis, Isaac P.,
Davis, Margaret,
Dees, Penninah,
Deese, Fred,
Dowd, Mrs. Christine,
Dowd, James Edward,
Dowd, Lucile,
Duncan, J. Lon,
Eason, J. Lawrence,
Ellis, Irma,
Ervin, Carl Edgar,
Eubanks, F. L.,
Evans, Mabel A.,
Everett, James Alphonso,
Fetner, Pansy Elizabeth,
Foust, Henry Price,
Franck, Virginia L.,
Frazier, S. C.,
Freeman, Etta,
Fry, Thomas Albert,
Gattis, Elizabeth Burnett,
Gentry, J. Cephus,
Gordon, Nancy Stewart,
Gray, Minnie G.,
Green, Annie Gertrude,
Hadley, Lela,
Hamilton, Vilinda,
Hardy, Mary W.,
Harper, Winifred Edwards,
Helms, Eunice C.,
Herring, Annie,
Herring, Margaret M.,
Hines, Mrs. May H.,
Hodnett, Kent,
Holt, Lillian,
Holton, Fannie V.,
Hooten, Maude Estelle,

Goldsboro.
Gates.
Rougemont.
Selma.
Monroe,
Creswell.
Winton.
Wanchese.
Guilford College.
Pikeville.
Willard.
Wallace.
Wallace.
Wallace.
Clayton.
Stantonsburg.
Cary.
Troutmans.
Beaufort.
Manteo.
Palmyra.
Hamlet.
Greensboro.
Richlands.
Liberty.
Jacksonville.
Fayetteville.
Chapel Hill.
Stokesdale.
Hamlet.
Windsor.
Cana.
Williamston.
Pacolet, S. C.
Chase City, Va.
Snow Hill.
Unionville.
Chapel Hill.
Chapel Hill.
Kinston.
Wake Forest.
Smithfield.
Wilmington.
Belhaven.

Howard, Fred Ervin,
Howell, Bernice Taylor,
Howell, Nina,
Hunter, Essie Dale,
Hunter, Norfleet,
Iseley, Mrs. Lena H.,
Ives, Claude Leon,
Ivey, Mary Esther,
Jackson, Anson,
Jackson, Maggie H.,
Jackson, Wilbert,
Jones, Annie R.,
Jones, Laura M.,
Johnston, John Thomas,
Kelly, Sara Yates,
Kilpatrick, Kate L.,
Kilpatrick, Mary Knight,
Kiser, Jacob Levi,
Kitasawa, Shinjiro,
Kittrell, Lucy C.,
Lassiter, Chester Lawrence,
Latta, Huldah,
Leach, Nannie,
Leighton, Andrew F.,
Leighton, Mrs. Andrew F.,
Lindsey, Annie,
Lindsey, Katie,
Link, Lottie Maie,
Little, Fanny,
Long, Jesse Melvin,
Lunsford, Jennie L.,
Lynch, Alva,
Lynch, Rachel S.,
Lynch, Thomas Marvin,
Marrow, Henry B.,
Martin, Eva M.,
Maynard, Kate C.,
McGoogan, Mary S.,
McIntosh, Christine,
McIntyre, Lutie,
McIntyre, Mamie,
McKeown, Howard H.,
McKeown, Laura J.,
McQueen, Alice,

Mt. Holly.
Severn.
Charlotte.
Holly Springs.
Oxford.
Burlington.
Grifton.
Cary.
Cooper.
Durham.
Cooper.
Manteo.
Franklin.
Chapel Hill.
Charlotte.
Kinston.
Kinston.
King's Mountain.
Tokyo, Japan.
Kittrell.
Wilson's Mills.
Oxford.
McCullers.
Scotland Neck.
Scotland Neck.
Durham.
Durham.
Dunn.
Little's Mills.
Mollie.
Rutherford College.
Rutherfordton.
Chapel Hill.
Chapel Hill.
Henderson.
Pendleton.
Holly Springs.
Rennert.
Chapel Hill.
Troy.
Troy.
Stanley.
Stanley.
Lakeview.

McQueen, Flora,
McQueen, Margaret Kelly,
Middleton, Ada Maie,
Midgett, Mildred Lee,
Miller, Ida,
Millis, Ida E.,
Monroe, Baxter Cress,
Morgan, Minnie D.,
Moser, Early Hampton,
Moser, John William,
Moss, Zebulon V.,
Nichols, Sadie Jones,
Nicholson, Myrtle Irene,
Norris, Lina Banks,
Oldham, Geo. A., Jr.,
Oldham, Sallie Pickett,
Oliver, Rachel A.,
Outlaw, Myra,
Outlaw, Ruth,
Page, G. G.,
Page, Mrs. G. G.,
Parker, Mabel,
Pasmore, Julia,
Paris, Mrs. James,
Paris, Helen,
Pearson, Leslie W.,
Peele, Margaret Edith,
Phillips, Kate,
Pickard, Bertha,
Prevost, Robert Ward,
Pritchard, W. N., Jr.,
Quinn, Mary Willie,
Raney, Ida Ella,
Rawls, John Lewis,
Rhodes, William Henry,
Rhodes, William H., Jr.,
Rhyne, Stella May,
Rollins, Meader,
Rowe, Joseph . . .,
Rumbley, E. C.,
Russell, Charles R.,
Russell, Rebekah,
Scarboro, Cleo,
Scott, Samuel Floyd,

Lakeview.
Lakeview.
Warsaw.
Wanchese.
Clemmons.
Guilford College.
Salisbury.
Holland, Va.
Shoals.
Rural Hall.
Clyde.
Durham.
Burlington.
Holly Springs.
Raleigh.
Wilmington.
Marietta.
Kinston.
Kinston.
Fayetteville.
Fayetteville.
Rougemont.
Cary.
Oxford.
Oxford.
Dudley.
Guilford College.
Roberdel.
Chapel Hill.
Cid.
Chapel Hill.
Rutherfordton.
Chapel Hill.
Gatesville.
Chapel Hill.
Chapel Hill.
Gastonia.
Durham.
Small.
Burlington.
Denton.
Maxton.
Eagle Rock.
Mebane.

Scroggs, James Wade,

Seay, Henry Lee,
Setzer, Pearl,
Shields, John M.,
Smith, Nannie Elizabeth,
Smyre, Clara Rhodes,
Sneed, W. G.,
Stanford, William Raney,
Starr, Hannah J.,
Stevens, Susie,
Stroud, Julia Elizabeth,
Strowd, Mary Louise,
Strowd, Thomas W.,
Styron, Arthur H.,
Summerell, Mary,
Sugg, Annie,
Swindell, Myrtle,
Tharpe, Claudia Lea.,
Thomas, Louise Virginia,
Thomas, Rosa,
Thornton, Lizzie Eula,
Tisdale, Henrie G.,
Townsend, Kathleen,
Vann, Josephine Hartman,
Vaughan, Beulah Mae,
Walker, Eula,
Walker, Mary Frances,
Walker, Lora E.,
Wall, LeRoy B.,
Walton, Basil Manly,
Warner, Clara,
Weatherly, Bessie,
Weathers, Willa Louise,
Webb, Junius Clarence,
Welch, W. H.,
Wellons, Ben Fletcher,
Wellons, Elmer J.,
Wells, Mary Elizabeth,
Whitaker, Clifton L.,
Whitaker, Mrs. Clifton L.,
Whitaker, Margaret,
Whitaker, Susie,
Whitley, George Thaddeus,

Statesville.

Lexington, S. C.
Hickory.
Enfield.
Scotland Neck.
Lincolnton.
Dabney.
Teer.
Woodland.
Elizabeth City.
Kinston.
Chapel Hill.
Chapel Hill.
Wilmington.
China Grove.
Chapel Hill.
Belhaven.
Harmony.
Raleigh.
West Durham.
Beasley.
Wakefield.
Raeford.
Como.
Powellsville.
Rutherfordton.
Reidsville.
Reidsville.
Winston-Salem.
Morganton.
Clemmons.
Elizabeth City.
Apex.
Chapel Hill.
Tyner.
Smithfield.
Smithfield.
Franklin.
Enfield.
Enfield.
Enfield.
Enfield.
Smithfield.

Whitley, Ruth F.,
Wiggs, Bertha Lilly,
Wildman, James Rowland,
Williams, A. R.,
Williams, Mrs. A. R.,
Williams, J. A.,
Williamson, Sella Warren,
Woodall, H. C.,
Woltz, Claude Bernard,
Yarboro, Estelle,
Yates, Lydia E.,
Young, Charlotte,
Younts, W. Ernest,

Wakefield.
Wilmington.
Sanford, Fla.
Linwood.
Linwood.
Spencer.
Murfreesboro.
Smithfield.
Dobson.
Cary.
Cary.
Chapel Hill.
Guilford College.

GENERAL SUMMARY

Boards of Government and Instruction and Other Officers

Trustees	81
Professors	47
Instructors	10
Fellows and Assistants	24
	<hr/>
Other Officers	81
	10

Students

THE COLLEGE:

Senior Class	75
Junior Class.....	88
Sophomore Class.....	139
Freshman Class.....	220
Special Students.....	45
	<hr/>
	567

THE GRADUATE SCHOOL..... 26

THE SCHOOL OF LAW:

Students in Law	108
Special Students in Law.....	18
	<hr/>
	126

THE SCHOOL OF MEDICINE:

Second Year Students.....	25
First Year Students.....	29
	<hr/>
	54

THE SCHOOL OF PHARMACY:

Second Year Students.....	10
First Year Students.....	23
	<hr/>
	33

Total Number of Students..... 806

Deduct for Names counted twice..... 10

Total Number of Regular Students..... 796

Total Attendance Summer School for Teachers, 1911..... 225

SUMMARY BY STATES

Summary by States

North Carolina.....	735	Persia	2
South Carolina.....	14	Texas	2
Florida	13	Cuba	1
Virginia	11	Georgia	1
Tennessee	7	Kentucky	1
Alabama	2	Massachusetts	1
District of Columbia	2	New Jersey	1
New York	2	Pennsylvania	1

THE ASSOCIATIONS OF THE ALUMNI

THE GENERAL ASSOCIATION

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The Alumni Council

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WM. S. BERNARD, A. M., *Corresponding Sec'y*, Chapel Hill, N. C.
J. Y. JOYNER, A. B., LL. D., *Treasurer*, Raleigh, N. C.
WALTER MURPHY, *General Secretary.*
W. H. SWIFT, A. B., Greensboro, N. C.
V. L. STEPHENSON, A. B., Charlotte, N. C.
R. H. SYKES, A. B., Durham, N. C.
HAYDEN CLEMENT, A. B., Salisbury, N. C.
WM. T. ANDREWS, A. B., Raleigh, N. C.
J. C. B. EHRLINGHAUS, A. B., Elizabeth City, N. C.
A. S. BARNARD, A. B., Asheville, N. C.
D. B. TEAGUE, A. B., Raeford, N. C.
J. K. WILSON, A. B., Elizabeth City, N. C.
P. D. GOLD, A. B., Raleigh, N. C.
T. D. WARREN, A. B., Newbern, N. C.
J. D. CARR, A. B., Wilmington, N. C.

The plan of organization adopted by the General Association of the Alumni on June 2, 1911, is as follows:—1. A deliberative body to be known as *The General Assembly of the Alumni of the University of North Carolina*, composed of *delegates* from the Local Associations to meet yearly on such day of Commencement Week as has been previously arranged. 2. A directing board of fifteen to be known as *The Alumni Council*, elected by the General Assembly, the officers of which board shall be the officers of the General Assembly. 3. Local Associations to be known by the names of their respective counties and towns. For a printed form of this constitution in detail application should be made to Mr. Wm. S. Bernard, Chapel Hill, N. C.

Membership in the General Association of the Alumni includes all persons who have matriculated at the University of North Carolina in any department except the Summer School and all who are or have been officers of the institution.

* Died December 23, 1911.

LOCAL ASSOCIATIONS

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E. S. W. Dameon, *Secretary*.

ANSON COUNTY ALUMNI ASSOCIATION, Wadesboro, N. C.

W. K. Boggon, *President*.

J. E. Hart, M. D., *Secretary*.

BERTIE COUNTY ALUMNI ASSOCIATION, Windsor, N. C.

Francis D. Winston, *President*.

Francis Gillam, *Secretary*.

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J. W. Cannon, Jr., *Secretary*.

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A. A. Kent, *President*.

J. L. Harris, *Secretary*.

CRAVEN COUNTY ALUMNI ASSOCIATION, Newbern, N. C.

A. D. Ward, *President*.

William Dunn, Jr., *Secretary*.

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C. G. Rose, *Secretary*.

DAVIDSON COUNTY ALUMNI ASSOCIATION, Lexington, N. C.

Z. V. Walser, *President*.

J. F. Spruill, *Secretary*.

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J. T. Bridges, *President*.

George Howard, *Vice-President*.

EDGECOMBE COUNTY ALUMNI ASSOCIATION, Rocky Mount, N. C.

Jos. B. Ramsey, *President*.

R. M. Wilson, *Secretary*.

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R. H. Sykes, *President*.

S. C. Chambers, *Secretary*.

FORSYTHE COUNTY ALUMNI ASSOCIATION, Winston-Salem, N. C.

Howard A. Rondthaler, D. D., *President*.

Jas. A. Gray, Jr., *Secretary*.

- GRANVILLE COUNTY ALUMNI ASSOCIATION, Oxford, N. C.
A. W. Graham, *President*.
F. M. Pinnix, *Secretary*.
- GUILFORD COUNTY ALUMNI ASSOCIATION, Greensboro, N. C.
J. A. Brooks, *President*.
C. A. Hines, *Secretary*.
- GUILFORD COUNTY ALUMNI ASSOCIATION, High Point, N. C.
W. P. Reagan, *President*.
T. J. Gold, *Secretary*.
- HENDERSON COUNTY ALUMNI ASSOCIATION, Hendersonville, N. C.
Michael Schenck, *President*.
Louis Hesterly, *Secretary*.
- IREDELL COUNTY ALUMNI ASSOCIATION, Mooresville, N. C.
E. W. Brawley, *President*.
A. C. Kerley, *Secretary*.
- JOHNSTON COUNTY ALUMNI ASSOCIATION, Smithfield, N. C.
E. W. Pou, *President*.
H. P. Stevens, *Secretary*.
- MARTIN COUNTY ALUMNI ASSOCIATION, Williamston, N. C.
Sylvester Hassell, *President*.
H. A. Biggs, *Secretary*.
- MECKLENBURG COUNTY ALUMNI ASSOCIATION, Charlotte, N. C.
W. F. Harding, *President*.
J. H. Parker, *Secretary*.
- NEW HANOVER COUNTY ALUMNI ASSOCIATION, Wilmington, N. C.
Marsden Bellamy, *President*.
Louis Goodman, *Secretary*.
- ORANGE COUNTY ALUMNI ASSOCIATION, Hillsboro, N. C.
John W. Graham, *President*.
S. P. Lockhart, *Secretary*.
- PASQUOTANK COUNTY ALUMNI ASSOCIATION, Elizabeth City, N. C.
J. P. Overman, *President*.
J. K. Wilson, *Secretary*.
- PERQUIMANS COUNTY ALUMNI ASSOCIATION.
Affiliates with Pasquotank Co. Alum. Ass'n.
- RANDOLPH COUNTY ALUMNI ASSOCIATION, Ashboro, N. C.
A. C. McAlister, *President*.
H. B. Hiatt, M. D., *Secretary*.

ROBESON COUNTY ALUMNI ASSOCIATION, Red Springs, N. C.

J. L. McMillan, M. D., *President.*Hamilton McMillan, *Secretary.*

ROWAN COUNTY ALUMNI ASSOCIATION, Salisbury, N. C.

Walter Murphy, *President.*J. M. Julian, *Secretary.*

SAMPSON COUNTY ALUMNI ASSOCIATION, Clinton, N. C.

F. B. Johnson, *President.*L. C. Kerr, *Secretary.*

UNION COUNTY ALUMNI ASSOCIATION, Monroe, N. C.

W. B. Love, *President.*J. C. M. Vann, *Secretary.*

WAKE COUNTY ALUMNI ASSOCIATION, Raleigh, N. C.

J. Martin Fleming, M. D., *President.*Jno. W. Hinsdale, *Secretary.*

WILSON COUNTY ALUMNI ASSOCIATION, Wilson, N. C.

T. J. Hadley, *President.*F. C. Archer, *Secretary.*

CATAWBA COUNTY ALUMNI ASSOCIATION, Hickory, N. C.

L. F. Abernethy, *President.*B. B. Blackwelder, *Secretary.*

PITT COUNTY ALUMNI ASSOCIATION, Greenville, N. C.

——— *President.*C. S. Carr, *Secretary.*

ATLANTA ALUMNI ASSOCIATION, Atlanta, Ga.

Sheppard Bryan, *President.*Jerome Moore, *Secretary.*

BIRMINGHAM ALUMNI ASSOCIATION, Birmingham, Ala.

Warren Kluttz, *President.*Wade Oldham, *Secretary.*

NEW YORK ALUMNI ASSOCIATION, New York, N. Y.

Augustus Van Wyck, *President.*Francis A. Gudger, *Secretary.*

NORFOLK ALUMNI ASSOCIATION, Norfolk, Va.

J. H. Winston, *President.*G. R. Berkeley, M. D., *Secretary.*

SCHEDULE OF EXAMINATIONS

FIRST DAY	SECOND DAY	THIRD DAY	FOURTH DAY	FIFTH DAY
Chemistry 1 Economics 4 Educat'n 5, 6 English 9 French 2 Geology 8 German 2B Greek A Greek 4 History 8 Latin 5 Math. 1 Math. 4 Math. 7A	Chemistry 6 English 1 English 14 French A French 4 Greek 6 History 1 Latin 2 Library Adm. Math. 10 Philosophy 6 Physics 1 Physics 15 Pub. Spkg. 8 Spanish 1	Chemistry 5 Economics 2 English 1 English 2 French 1 Geology 4 German A Greek 5 Greek 14 History 10 Latin 6 Latin 7A,8 Math. 7 Math. 12 Philosophy 1 Physics A	Economics 1 English 1 English 10 German 1 Greek 16,17 History 1 History 3 Latin 10 Math. 2 Math. 8 Math. 14 Spanish 2	Botany 2 Chemistry 7 English 8 English 11 Geology 8 German 4 German 6 Physics 4 Physics 14 Pug. Spkg. 2
SIXTH DAY	SEVENTH DAY	EIGHTH DAY	NINTH DAY	TENTH DAY
Education 7, 8 English 1 English 4 English 10 Geology 7 German 8 Greek 1 Greek 15 History 4 Latin 1 Latin 2 Math. 8B Physics 1 Physics 12 Zoology 1	Chemistry 7A Education 3, 4 English 2 English 5 Geology 1 German A German 1 Greek 7 Latin 1 Math. 1 Math. 13 Physics 6	Education 1, 2 English 2 French A German A Greek 1 History 1 History 7 Latin 1 Math. 1 Math. 2 Philosophy 2 Physics 2 Physics 10	Chemistry 2 Chemistry 7B Education 9 English 6 French A French 1 Geology 6 German A Greek 2 History 1 History 12 Latin 2 Math. 1 Math. 8A Math. 8 Philosophy 4 Physics 11	Botany 1 Economics 3 Educ'n 10, 11 German 2A History 9 History 11, 6 Italian 1 Math. 11 Philosophy 3 Physics 5

SCHEDULE OF RECITATIONS 1912-1913

	8:30	9:25	9:45	10:40	11:35	12:30	2:30
MON.	A Chem. 7 A Educat'n 3, 4 Eng. 2, II Eng. 5 Geology 1 German A, I German 1, II Greek 7 Latin 1, II V Math. I, I, III, V Math. 5 Math. 13 Physics 6 Pub.Spk'g. 1, VIII	CHAPEL	B Chem. 2 Chem. 7B Education 9 Eng. 1, IV Eng. 6 French A, II French 1, I Germ. A, IV Greek 2 History 1, I Latin 2, IV Math. 1 VIII, X Math. 3A Math. 8 Philos. 4	C Chem. 16 Educat'n 7,8 Eng. 1, III Eng. 4 Geology 7 German 3 Greek 1, II Greek 15 Latin 1, I, IV Latin 2, II Physics 1, I Physics 12 Pub. Spk'g. 1, I Zoology 1	D Chem. 1 Econom. 4 Educat'n 5,6 Eng. 9 French 2 Geology 3 German 2B Greek A History 8 Latin 1, III Latin 13 Math. 1,VII, IX Math. 4 Math. 7A Pub. Spk'g.1, VII	E Educat'n 1,2 Eng. 2, IV French A, IV Germ. A, II Greek 1, I Hist'y 1, IV History 7 Latin 1, VI Math. 1, II, IV, VI Math. 2, II Philos. 2 Physics 10	Pub.Spkg.1, V Laboratory: Chem. 1, I Chem.3,III (Pre-Med.) Chem. 4 Chem. 8 Chem. 9 Physics 1, I Physics 4 Zoology 2
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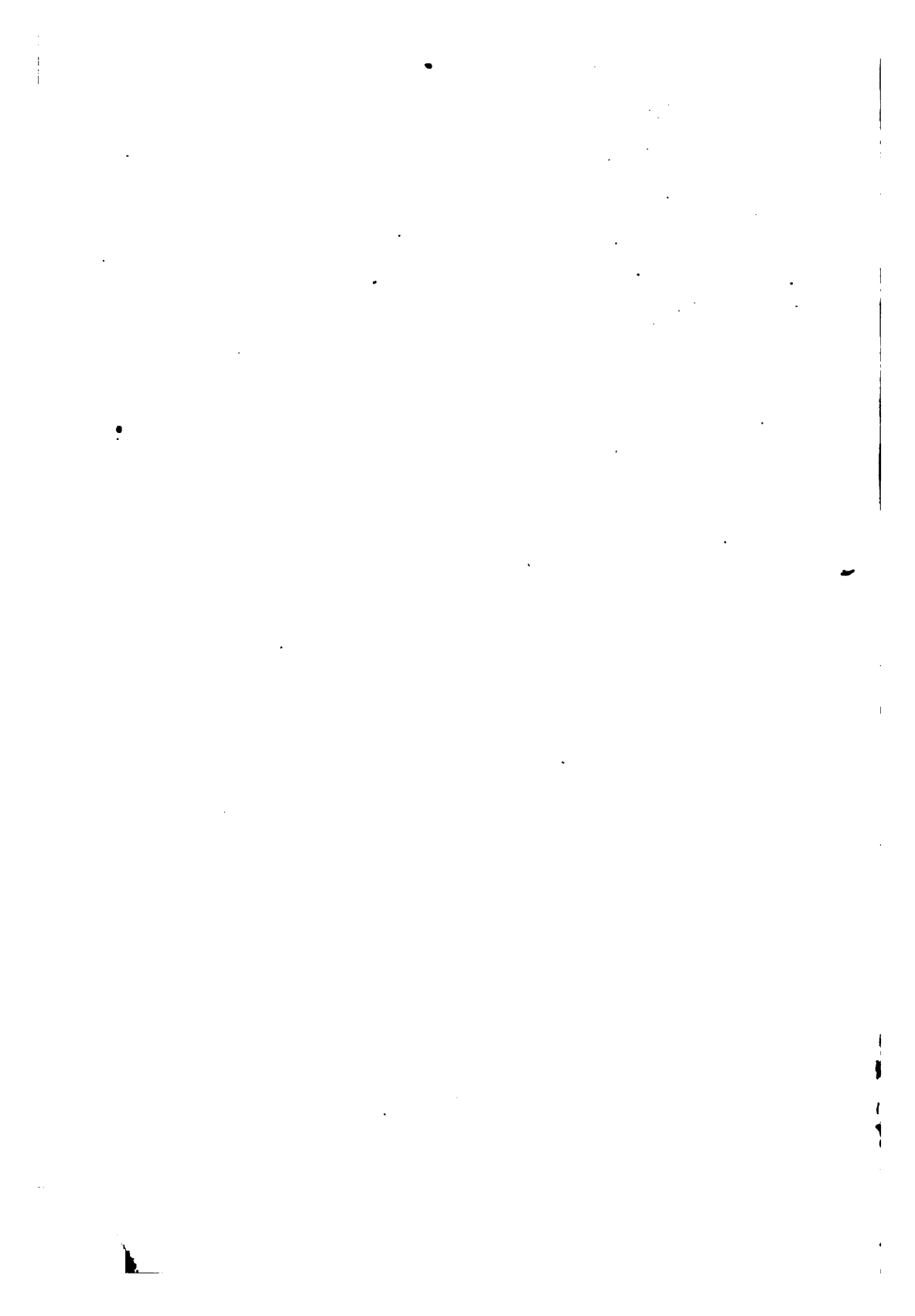
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1913

March, 1913

Number 107

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THE CATALOGUE
1912-1913

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THE UNIVERSITY OF NORTH CAROLINA

THE ONE HUNDRED AND
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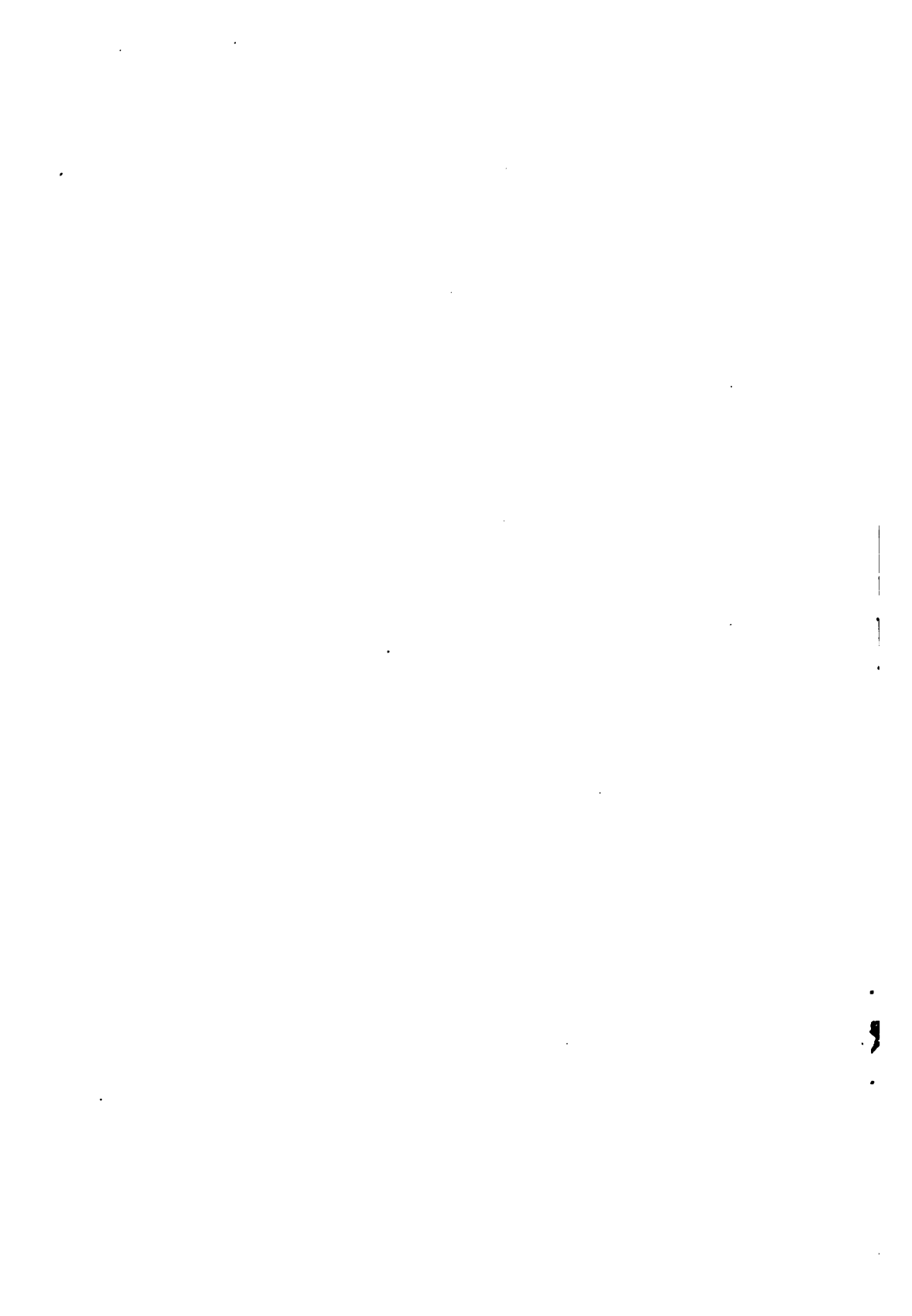


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CALENDAR

1913

- June 11-July 23* Summer Term for Teachers.
June 18-August 28 Summer Law School.
September 3-6 Wednesday to Saturday. Examinations for Removal of Conditions.
September 8-10 Monday to Wednesday. Entrance Examinations. Registration.
September 11 Thursday. Lectures begin (Fall Term).
October 12 Sunday. University Day.
November 27 Thanksgiving Day.
December 19 Friday. Christmas Recess begins (1:30 P. M.).

1914

- January 2-3* Friday and Saturday. Registration.
January 5 Monday. Lectures begin.
January 19-29 Mid-Year Examinations.
January 30 Friday. Lectures begin (Spring Term).
February 22 Sunday. Washington's Birthday.
May 2 Saturday. Selection of Commencement Orators.
May 19-29 Final Examinations.
May 31 Sunday. Baccalaureate Sermon.
Sermon before the Y. M. C. A.
June 1 Monday. Senior Class Day.
Inter-Society Banquet and Reunions.
June 2 Tuesday. Alumni Day.
Meeting of the Board of Trustees.
Inter-Society Debate.
June 3 Wednesday. Commencement Day.
Summer Vacation begins.
September 2-5 Wednesday to Saturday. Examinations for Removal of Conditions.

PART ONE

FOUNDATION AND GOVERNMENT

TRUSTEES

FACULTY

COMMITTEES

THE UNIVERSITY

FOUNDATION AND GOVERNMENT. The University was established in obedience to the first Constitution of the State, which was adopted in December, 1776. A clause of section XLI declared that "all useful learning shall be duly encouraged, and promoted in one or more universities." The charter was granted by the General Assembly in 1789, the cornerstone of the Old East Building was laid in 1793, and the University was opened in 1795.

The title, preamble, and first section of the Act of incorporation are as follows:

"AN ACT TO ESTABLISH A UNIVERSITY IN THIS STATE."

"WHEREAS in all well regulated Governments, it is the indispensable Duty of every Legislature to consult the Happiness of a rising Generation, and endeavor to fit them for an honorable Discharge of the Social Duties of Life, by paying the strictest attention to their Education: And whereas an University supported by permanent Funds, and well endowed, would have the most direct Tendency to answer the above Purpose:

"I. *Be it therefore enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the Authority of the Same, That, Samuel Johnson, James Iredell, Charles Johnson, Hugh Williamson, Stephen Cabarrus, Richard Dobbs Spaight, William Blount, Benjamin Williams, John Sitgreaves, Frederick Hargett, Robert Snead, Archibald Maclaine, Honourable Samuel Ashe, Robert Dixon, Benjamin Smith, Honourable Samuel Spencer, John Hay, James Hogg, Henry William Harrington, William Barry Grove, Reverend Samuel M'Corkle, Adlai Osborne, John Stokes, John Hamilton, Joseph Graham, Honourable John Williams, Thomas Person, Alfred Moore, Alexander Mebane, Joel Lane, Willie Jones, Benjamin Hawkins, John Haywood, senior, John Macon, William Richardson Davie, Joseph Dixon, William Lenoir, Joseph M'Dowell, James Holland and William Porter, Esquires, shall be and they are hereby declared to be a body politic and corporate to be known and distinguished by the name of The Trustees of the University of North Carolina** and by that name

*The corporate name has been changed to The University of North Carolina.

shall have perpetual Succession and a common Seal; and that they the Trustees and their Successors, by the Name aforesaid, or a Majority of them, shall be able and capable in Law to take, demand, receive and possess all Monies, Goods and Chattels that shall be given them for the Use of the said University, and the same apply according to the Will of the Donors, and by Gift, Purchase or Devise to take, have, receive, possess, enjoy and retain to them and their Successors forever, any Lands, Rents, Tenements and Hereditaments, of what Kind, Nature or Quality soever the same may be, in special Trust and Confidence that the same or Profits thereof shall be applied to and for the Use and Purpose of establishing the said University."†

The University is governed by a board of trustees elected by the Legislature and is free from sectionalism, sectarian, or political control. The Governor of the State is *ex-officio* President of the Board of Trustees.

Article IV of the Constitution of 1876 contains the following provisions regarding the University:

"SEC. 6. The General Assembly shall have power to provide for the election of Trustees of the University of North Carolina, in whom, when chosen, shall be vested all the privileges, rights, franchises, and endowments thereof, in anywise granted to or conferred upon the Trustees of said University; and the General Assembly may make such provisions, laws, and regulations from time to time as may be necessary and expedient for the maintenance and management of said University.

"SEC. 7. The General Assembly shall provide that the benefits of the University, as far as practicable, be extended to the youth of the State free of expense for tuition: also all the property which has heretofore accrued to the State, or shall hereafter accrue, from escheats, unclaimed dividends, or distributive shares of the estates of deceased persons, shall be appropriated to the use of the University."

LOCATION. The seat of the University is Chapel Hill, Orange county, twenty-eight miles northwest of Raleigh. Two daily passenger trains run between Chapel Hill and University Junction, a station on the North Carolina Railroad. The site for the institution was selected because of its healthfulness, its freedom from malaria, its supply of pure water, its beautiful scenery, and its central location in the State.

EQUIPMENT. The University campus contains forty-eight acres of land, affording ample grounds for building and for all

† Laws of the State of North Carolina, published by James Iredell, Edenton, MDCCXCI.

sorts of athletic sports. The University owns, contiguous to the campus, five hundred acres of forest lands, which are partly laid off in walks and drives. The University has twenty-five buildings.

The South Building contains one lecture room and thirty living rooms.

The Old East Building contains two lecture rooms and twenty-eight living rooms.

The Old West Building contains two lecture rooms, the Historical Museum, and twenty-seven living rooms.

Person Hall contains the Pharmaceutical Laboratories and three lecture rooms.

Gerrard Hall is used for morning prayers, for mass meetings and other student assemblies, and for public lectures.

Smith Hall contains the Law library and lecture rooms.

The New West Building contains the Dialectic Literary Society's Hall, one lecture room and eleven living rooms.

The New East Building contains the Philanthropic Literary Society's Hall, the Geological Laboratory and Museum, the offices of the North Carolina Geological Survey, and fourteen living rooms.

Memorial Hall commemorates the illustrious dead of the University. It is used at Commencement for public exercises.

The Alumni Hall contains the offices of administration, the Physical Laboratories, and nine lecture rooms.

The Carr Building, the gift of Gen. J. S. Carr, contains forty-two living rooms.

The Smith Building contains forty living rooms.

The William Preston Bynum, Jr., Gymnasium is the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893. It is furnished with modern apparatus, swimming pool, baths, lockers, and running track; and contains a trophy room and the office of the Instructor in Physical Training.

The Young Men's Christian Association Building is a valuable adjunct to the work of the Association.

Chemistry Hall contains Chemical Laboratories, lecture rooms, offices for the instructors, and store rooms.

The new *Library* building, given by Andrew Carnegie, Esq., has now been in use for five years.

Davie Hall, the Biological Laboratory, contains laboratories and lecture rooms for zoology and botany.

Caldwell Hall, just completed, is used exclusively by the School of Medicine, and contains laboratories, lecture rooms, dissecting rooms, and offices for the instructors.

The New Educational Building, the gift of the Peabody Board, contains lecture rooms, offices, library, and auditorium and is splendidly equipped in every detail.

The Infirmary, a spacious and completely equipped building, is open to all students of the University.

The New Dormitories, *Battle*, *Vance*, and *Pettigrew* Sections, contain seventy-two rooms in suite for the use of students.

Commons contains a dining hall where students obtain board at ten dollars a month. The whole enterprise was made possible through the beneficence of Mrs. Frederick Baker, of New York.

University Inn is used for dormitory purposes, and contains a dining hall where students obtain board at fifteen dollars a month.

The Power House contains the electric lighting plant, the central heating plant, the pumps of the system of water supply, and the rooms of the University Press.

The general equipment has been improved by a thorough system of sewers and baths, a supply of pure water in all the buildings, and hot water heat in all the offices, recitation rooms, reading rooms and living rooms.

COLLEGE YEAR. The College year begins on the second Thursday in September. It is divided into two terms of four and a half months each. Commencement is held on Wednesday before the first Thursday in June. The summer vacation begins on Commencement day and ends on the Wednesday before the second Thursday in September. There is a Christmas recess of about ten days. The twelfth of October (University Day), Thanksgiving Day, and the twenty-second of February (Washington's Birthday) are holidays.

DEGREES. The degrees of Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Bachelor of Laws, and Graduate of Pharmacy are conferred by vote of the Trustees, after the recommendation of the Faculty, upon candidates who have satisfied the requirements of residence and study at the University. Students who are not candidates for a degree may elect any studies they wish, subject to the Committee on Courses, devoting their time entirely to one or two subjects, or selecting groups of such subjects as suit their tastes and purposes.

GRADUATE STUDENTS. Free instruction is given in the College to graduates of colleges and universities. Women are admitted to the higher courses of the University.

PHYSICAL TRAINING. Hearty encouragement is given to athletic sports and to all kinds of physical culture. The athletic field furnishes ample facilities for football and baseball. The Lake Track is admirably adapted for running, bicycling, and general track athletics. Fifteen tennis courts are located on the campus. Systematic exercise in the Bynum Gymnasium under a skilled instructor is required of all students in the College, except Seniors.

GENERAL CULTURE. Chapel Exercises are conducted in Gerrard Hall, with the reading of the scriptures and singing, every weekday morning except Saturday, at 9:25 o'clock. At the same hour timely talks are given by different members of the Faculty. Attendance at this service is required of all undergraduates, unless especially excused. Bible classes for young men are taught in each of the four churches of the village every Sunday. Religious services are held twice a week, or oftener, in each church. A series of sermons is delivered annually by the University Preachers, chosen by the Trustees from the various denominations. Bible lectures are delivered every Sunday morning in Gerrard Hall. The Young Men's Christian Association meets three times a week, for prayer and other services, and conducts a series of Bible courses, which are largely attended by the students.

DISCIPLINE. The University endeavors to make young men manly and self-reliant, and to develop character by educating

the conscience. The Faculty may, at their discretion, admonish, suspend, or dismiss students for neglect of duty or for misconduct.

MEDICAL ATTENTION. In order to secure responsible and efficient medical advice and to provide proper attention for the student during sickness the University employs a practicing physician and maintains a well appointed infirmary. The Infirmary is equipped with all necessary conveniences and comforts, is under the immediate supervision of the University Physician, and is provided with an experienced nurse. At the discretion of the University Physician a student may be admitted to its wards and for such services as may be rendered by the staff no charges are made, but should any additional service (consultations, special nurses, operations requiring the attendance of a trained surgeon), recommended by the attending physician and approved by the parent or guardian, be necessary, the student will be required to pay for such services.

TRUSTEES

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JAMES YADKIN JOYNER, SUPERINTENDENT OF PUBLIC INSTRUCTION, member *ex-officio* of the Board of Trustees.

RICHARD HENRY LEWIS, Secretary.

MEMBERS OF THE BOARD

1913*

JOHN LANGHORNE BARHAM.....	Wayne.
STEPHEN CAMBRELENG BRAGAW.....	Beaufort.
WILLIAM EDMOND BREESE.....	Transylvania.
WALTER CLARK, JR.....	Wake.
FREDERICK JACKSON COXE.....	Anson.
CLAUDIUS DOCKERY.....	Wake.
RUFUS ALEXANDER DOUGHTON.....	Alleghany.
ROBERT CHARLES ELLIS.....	Cleveland
WILLIAM NASH EVERETT.....	Richmond.
NELSON MCPHERSON FEREBEE.....	Granville.
†ROBERT TERELIUS GRAY.....	Wake.
FRANCIS W. HANCOCK.....	Granville.
JOHN SPRUNT HILL.....	Durham.
JOHN ALLEN HOLT.....	Guilford.
WHITEHEAD KLUTZ.....	Rowan.
LARRY I. MOORE.....	Pitt.
JOHN MOTLEY MOREHEAD.....	Rockingham.
HAYWOOD PARKER.....	Buncombe.
ALFRED MOORE SCALES.....	Guilford.

1915

†CHARLES BRANTLEY AYCOCK.....	Wake.
KEMP PLUMMER BATTLE.....	Orange.
BENNEHAN CAMERON.....	Durham.
ADOLPHUS HILL ELLER.....	Forsyth.
JOHN WILLIAM FRIES.....	Forsyth.
WILLIAM ANDERSON GUTHRIE.....	Durham.

* The legal term of office expires November 30 of the year indicated.

† Dead.

EDWARD JOSEPH HALE.....	Cumberland.
HENRY AUGUSTUS GILLIAM.....	Edgecombe.
†THOMAS STEPHEN KENAN.....	Wake.
JOHN LAMB	Martin.
RICHARD HENRY LEWIS.....	Wake.
ANGUS WILTON MCLEAN.....	Robeson.
ROBERT L. MADISON.....	Jackson.
ADDISON GOODLOE MANGUM.....	Gaston.
JAMES SMITH MANNING.....	Durham.
JOHN ARCHIBALD PARKER.....	Mecklenburg.
JETER CONNELLY PRITCHARD.....	Buncombe.
THOMAS DAVIS WARREN.....	Craven.
HENRY M. WEIL.....	Wayne.
JOHN KENYON WILSON.....	Pasquotank.

1917

ALEXANDER BOYD ANDREWS.....	Wake.
DAVID COLLIN BARNES.....	Hertford.
JOHN ALSTON BARRINGER.....	Guilford.
†RICHARD HENRY BATTLE.....	Wake.
JULIAN SHAKESPEARE CARR.....	Durham.
JOSEPHUS DANIELS.....	Wake.
AUGUSTUS WASHINGTON GRAHAM.....	Granville.
JOHN BRYAN GRIMES.....	Pitt.
JOHN GEORGE HANNAH, JR.....	Chatham.
LUTHER THOMPSON HARTSELL.....	Cabarrus.
ALFRED WILLIAMS HAYWOOD.....	Alamance.
JOHN WETMORE HINSDALE, JR.....	Wake.
FRANKLIN P. HOBGOOD.....	Granville.
WILLIAM STAMPS HOWARD.....	Edgecombe.
HENRY ARMAND LONDON.....	Chatham.
PAUL JONES LONG.....	Northampton.
GEORGE McNEILL ROSE.....	Cumberland.
ALBERT MARCHANT SIMMONS.....	Currituck.
JAMES SPRUNT	New Hanover.
GEORGE STEPHENS.....	Mecklenburg.

1919

J. OSCAR ATKINSON.....	Alamance.
VICTOR SILAS BRYANT.....	Durham.
†WILLIAM HYSLOP SUMNER BURGWYN.....	Halifax.
WILLIAM PRESTON BYNUM, JR.....	Guilford.
JAMES OZBORN CARR.....	New Hanover.

† Dead.

JOHN HENRY DILLARD.....	Cherokee.
JOHN WASHINGTON GRAHAM.....	Orange.
MARMADUKE JONES HAWKINS.....	Warren.
SAMUEL SPENCER MANN.....	Hyde.
WALTER MURPHY.....	Rowan.
WILLIAM BLOUNT RODMAN.....	Mecklenburg.
CHARLES LEE SMITH.....	Wake.
DAVID STERN.....	Guilford.
ZEB VANCE WALZER.....	Davidson.
CHARLES WHEDBEE.....	Perquimans.
WILLIAM THORNTON WHITSETT.....	Guilford.
FRANCIS DONNELL WINSTON.....	Bertie.
CHARLES WILLIAMS WORTH.....	New Hanover.
FRED A. WOODWARD.....	Wilson.
EMMETT ROBERSON WOOTEN.....	Lenoir.

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VICTOR S. BRYANT,	JAMES Y. JOYNER,
JULIAN S. CARR,	†THOMAS S. KENAN,
JOSEPHUS DANIELS,	RICHARD H. LEWIS,
CLAUDIUS DOCKERY,	JAMES S. MANNING,
JOHN W. GRAHAM,	CHARLES LEE SMITH,
CHARLES WHEDBEE.	

VISITING COMMITTEE.

JULIAN S. CARR,	J. GEORGE HANNAH, JR.,
JOHN LAMB.	

†Dead.

FACULTY

OFFICERS OF ADMINISTRATION

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., President.
EDWARD KIDDER GRAHAM, A. M., Dean of the College of Liberal Arts.
ANDREW HENRY PATTERSON, A. M., Dean of the School of Applied Science.
CHARLES LEE RAPER, Ph. D., Dean of the Graduate School.
LUCIUS POLK MCGEHEE, A. B., Dean of the School of Law.
ISAAC HALL MANNING, M. D., Dean of the School of Medicine.
EDWARD VERNON HOWELL, A. B., Ph. G., Dean of the School of Pharmacy.

OFFICERS OF INSTRUCTION

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., Professor of Chemistry.
Student, University of Virginia, 1874-1879; University of Bonn, 1879-1880; A. M., Ph. D., University of Goettingen, 1881; Student, University of Berlin, 1889; LL. D., University of Pennsylvania, 1901; D. Sc., Lafayette College, 1902; LL. D., University of South Carolina, 1905; LL. D., University of Alabama, 1906; Professor of Chemistry, University of North Carolina, 1880-1900; President, *ibid.*, 1900—

KEMP PLUMMER BATTLE, A. M., LL. D., Professor Emeritus of History.
A. B., University of North Carolina, 1849; A. M., *ibid.*, 1852; Tutor in Mathematics, *ibid.*, 1850-1854; LL. D., Davidson College, 1879; President University of North Carolina, 1876-1891; Professor of History, *ibid.*, 1891-1907; LL. D., *ibid.*, 1910; Professor Emeritus of History, *ibid.*, 1907—

WALTER DALLAM TOY, M. A., Professor of the Germanic Languages and Literatures.
M. A., University of Virginia, 1882; Student, University of Leipzig, 1882-1883, University of Berlin, 1883-1885, Collège de France, 1885; Professor of Germanic Languages and Litera-

tures, University of North Carolina, 1885—; Student, University of Berlin, 1910-1911.

WILLIAM CAIN, A. M., Professor of Mathematics.

A. M., North Carolina Military Polytechnic Institute, 1866; Professor of Mathematics and Engineering, Carolina Military Institute, 1874-1879; Professor of Mathematics and Engineering, South Carolina Military Academy, 1882-1889; Professor of Mathematics, University of North Carolina, 1889—

HENRY HORACE WILLIAMS, A. M., B. D., Professor of Philosophy.

A. B., A. M., University of North Carolina, 1883; Professor of Philosophy, Trinity College (N. C.), 1885; B. D., Yale University, 1888; Fellow, Harvard University 1889; Professor of Philosophy, University of North Carolina, 1890—

HENRY VANPETERS WILSON, Ph. D., Professor of Zoology.

A. B., Johns Hopkins University, 1883; Fellow, *ibid.*, 1887-1889; Ph. D., *ibid.*, 1888; Professor of Biology, University of North Carolina, 1891-1904; Student, University of Berlin, 1902-1903; Professor of Zoology, University of North Carolina, 1904—

COLLIER COBB, A. M., Professor of Geology and Mineralogy.

A. B., Harvard University, 1889; A. M., *ibid.*, 1894; Assistant in Geology, *ibid.*, 1888-1890; Instructor in Geology, Massachusetts Institute of Technology, 1890-1892; Instructor in Geology, Harvard Summer School, 1891; Assistant Professor of Geology, University of North Carolina, 1892-1893; Professor of Geology and Mineralogy, *ibid.*, 1893—

CHARLES STAPLES MANGUM, A. B., M. D., Professor of Anatomy.

A. B., University of North Carolina, 1891; M. D., Jefferson Medical College, 1894; Assistant and Demonstrator, *ibid.*, 1894-1895; Graduate Student, University of Chicago, 1906; Professor of Anatomy, University of North Carolina, 1896—

EDWARD VERNON HOWELL, A. B., Ph. G., Professor of Pharmacy.

A. B., Wake Forest College, 1892; Ph. G., Philadelphia College of Pharmacy, 1894; Professor of Pharmacy and Dean of the School of Pharmacy, University of North Carolina, 1897—

MARCUS CICERO STEPHENS NOBLE, Professor of Pedagogy.

Student, Davidson College and University of North Carolina; Commandant, Bingham School, 1880-1883; Superintendent of Schools, Wilmington, N. C., 1883-1898; Professor of Pedagogy, University of North Carolina, 1898 —

ISAAC HALL MANNING, M. D., Professor of Physiology.

Student, University of North Carolina, 1882-1886; Assistant in Chemistry, *ibid.*, 1886; M. D., Long Island College of Medicine, 1897; Graduate Student, University of Chicago, 1901, 1903, Harvard University, 1902, 1906; Professor of Physiology, University of North Carolina, 1901 —; Dean of the School of Medicine, *ibid.*, 1905 —

***GEORGE HOWE, Ph. D., Professor of the Latin Language and Literature.**

A. B., Princeton University, 1897; A. M., Ph. D., University of Halle, 1903; Student, Oxford University, 1903; Professor of Latin Language and Literature, University of North Carolina, 1903 —

JOSEPH HYDE PRATT, Ph. D., Professor of Economic Geology.

Ph. B., Yale University, 1893; Assistant in Chemistry, *ibid.*, 1894; Assistant in Mining, *ibid.*, 1895; Instructor in Mining, Harvard Summer School, 1895; Ph. D., Yale University, 1896; Instructor in Mineralogy, *ibid.*, 1896-1897; Lecturer on Economic Geology, University of North Carolina, 1899-1904; Professor of Economic Geology, *ibid.*, 1904 —; State Mineralogist, 1897-1906; State Geologist, 1906 —

CHARLES HOLMES HERTY, Ph. D., Smith Professor of General and Industrial Chemistry.

Ph. B., University of Georgia, 1886; Ph. D., Johns Hopkins University, 1890; Instructor in Chemistry, University of Georgia, 1891-1894; Adjunct Professor of Chemistry, *ibid.*, 1894-1902; Student, University of Zurich and University of Berlin, 1899-1900; Professor of Chemistry, University of North Carolina, 1905 —; Dean of the School of Applied Science, *ibid.*, 1908-1911.

NATHAN WILSON WALKER, A. B., Professor of Secondary Education.

A. B., University of North Carolina, 1903; Superintendent of Schools at Ashboro, N. C., 1903-1905; Professor of Secondary

* Absent on leave 1912-1913.

Education, University of North Carolina, 1905—; State Inspector of Public High Schools, 1905—

WILLIAM DEBERNIERE MACNIDER, M. D., Professor of Pharmacology.

Assistant in Biology, University of North Carolina, 1899-1900; Assistant in Anatomy, *ibid.*, 1900-1901; M. D., *ibid.*, 1903; Student, University of Chicago, 1906, 1907, 1908; Professor of Pharmacology, University of North Carolina, 1905—

CHARLES LEE RAPER, Ph. D., Professor of Economics.

A. B., Trinity College, (N. C.), 1892; Instructor in Greek and Latin, *ibid.*, 1892-1893; Professor of Latin, Greensboro Female College, 1894-1898; Fellow in History, Columbia University, 1899-1900; Lecturer in History, *ibid.*, 1900-1901; Ph. D., *ibid.*, 1902; Associate Professor of Economics and History, University of North Carolina, 1901-1906; Professor of Economics, University of North Carolina, 1906—; Dean of Graduate School, *ibid.*, 1909—

EDWARD KIDDER GRAHAM, A. M., Professor of English.

Ph. B., University of North Carolina, 1898; Librarian, *ibid.*, 1899; Instructor in English, *ibid.*, 1899-1901; Associate Professor of English, *ibid.*, 1901-1904; A. M., Columbia University, 1902; Student, *ibid.*, 1904-1905; Professor of English, University of North Carolina, 1904—; Dean of College of Liberal Arts, *ibid.*, 1909—

WILLIAM CHAMBERS COKER, Ph. D., Professor of Botany.

B. S., University of South Carolina, 1894; Ph. D., Johns Hopkins University, 1901; Student, University of Bonn, 1901-1902; Associate Professor of Botany, University of North Carolina, 1902-1907; Professor of Botany, *ibid.*, 1907—

ARCHIBALD HENDERSON, Ph. D., Professor of Pure Mathematics.

A. B., University of North Carolina, 1898; A. M., *ibid.*, 1899; Instructor in Mathematics, *ibid.*, 1898-1902; Student, University of Chicago, 1901; Ph. D., University of North Carolina, 1902; Fellow and Tutor in Mathematics, University College and University of Chicago, 1902-1903; Associate Professor of Mathematics, University of North Carolina, 1902-1908; Professor of Pure Mathematics, *ibid.*, 1908—; Student, Cambridge University, University of Berlin, the Sorbonne, 1910-1911.

JOSEPH GREGOIRE DE ROULHAC HAMILTON, Ph. D., Alumni Professor of History.

M. A., University of the South, 1900; Ph. D., Columbia University 1906; Associate Professor of History, University of North Carolina, 1906-1908; Professor of History, *ibid.*, 1908 —

ANDREW HENRY PATTERSON, A. M., Professor of Physics.

Ph. B., B. E., University of North Carolina, 1891; A. B., Harvard, University, 1892; A. M., *ibid.*, 1893; Instructor in Physics, University of Georgia, 1894-1897; Adjunct Professor of Physics and Electrical Engineering, *ibid.*, 1897-1898; Professor of Physics and Astronomy, *ibid.*, 1898-1908; Student, University of Berlin and Charlottenburg Technische Hochschule, 1905-1906; Student, Cambridge University, 1906; Professor of Physics, University of North Carolina, 1908 —; Dean of the School of Applied Science, *ibid.*, 1911 —

HENRY MCGILBERT WAGSTAFF, Ph. D., Professor of History.

Ph. B., University of North Carolina, 1899; Professor of Mathematics, Rutherford College, (N. C.), 1900-1902; Ph. D., Johns Hopkins University, 1906; Acting Professor of Economics and History, Alleghany College, 1906-1907; Associate Professor of History, University of North Carolina, 1907-1909; Professor of History, *ibid.*, 1909 —

PATRICK HENRY WINSTON, Professor of Law.

Student, University of Texas, 1897-1898, University of North Carolina, 1899-1900; Graduate United States Military Academy, 1905; Student, University of North Carolina School of Law, 1905; Professor of Law, *ibid.*, 1909 —; Student, University of Michigan, 1910.

WILLIAM MORTON DEY, Ph. D., Professor of the Romance Languages and Literatures.

B. A., M. A., University of Virginia, 1902; Student in Paris, 1903; A. M., Harvard University, 1904; Austin Teaching Fellow, *ibid.*, 1905-1906; Ph. D., *ibid.*, 1906; Student in Spain and Italy, 1906; Assistant Professor of Romance Languages, University of Missouri, 1906-1909; Professor of Romance Languages, University of North Carolina, 1909 —

MARVIN HENDRIX STACY, A. M., Professor of Civil Engineering.

Ph. B., University of North Carolina, 1902; Instructor in Mathematics, *ibid.*, 1902-1906; A. M., *ibid.*, 1904; Student, Cornell Uni-

versity, 1905, 1906, 1911; Associate Professor of Civil Engineering, University of North Carolina, 1906-1910; Professor of Civil Engineering, *ibid.*, 1910 —

JAMES FINCH ROYSTER, Ph. D., Professor of English.

A. B., Wake Forest College, 1900; Student, University of Chicago, 1900-1902, University of Berlin, 1902-1903; Acting Instructor, University of Colorado, 1904-1905; Fellow, University of Chicago, 1905-1906; Associate, *ibid.*, 1906-1907; Ph. D., *ibid.*, 1907; Associate Professor of English, University of North Carolina, 1907-1910; Professor of English, *ibid.*, 1910 —

LUCIUS POLK MCGEEHEE, A. B., Professor of Law.

A. B., University of North Carolina, 1887; Student, School of Law, *ibid.*, 1890-1891; Professor of Law, *ibid.*, 1904-1909; Dean of the School of Law, 1910 —

CHARLES WESLEY BAIN, M. A. Professor of Greek.

Student, University of Virginia, 1883-1885; M. A., University of the South, 1895; Professor of Ancient Languages, University of South Carolina, 1898-1910; Professor of Greek, University of North Carolina, 1910 —

ATWELL CAMPBELL MCINTOSH, A. M., Professor of Law.

A. B., Davidson College, 1881; A. M., *ibid.*, 1887; Professor of Law, Trinity College (N. C.), 1904-1910; Professor of Law, University of North Carolina, 1910 —

HARRY WOODBURN CHASE, Ph. D., Professor of the Philosophy of Education.

A. B., Dartmouth College, 1904; Teacher in the Groveland High School (Mass.), 1904-1908; A. M., Dartmouth College, 1908; Director of the Clinic for Subnormal Children, Clark University, 1909-1910; Ph. D., *ibid.*, 1910; Professor of the Philosophy of Education, University of North Carolina, 1910 —

WADE HAMPTON BROWN, B. S., M. D., Professor of Pathology.

B. S., University of Nashville, 1899; Student, University of Chicago, 1902, 1903; M. D., Johns Hopkins University, 1907; Instructor in Pathology and Bacteriology, University of Virginia, 1907-1908; Instructor in Pathology, University of Wisconsin, 1908-1910; Associate Professor of Pathology, *ibid.*, 1910-1911; Professor of Pathology, University of North Carolina, 1911 —

ALVIN SAWYER WHEELER, Ph. D., Professor of Organic Chemistry.

A. B., Beloit College, 1890; Student, University of Chicago, 1895; Student, Cornell University, 1897; A. M., Harvard University, 1897; Assistant in Chemistry, *ibid.*, 1897-1900; Ph. D., *ibid.*, 1900; Associate Professor of Chemistry, University of North Carolina, 1900-1912; Professor of Organic Chemistry, *ibid.*, 1912—; Student, University of Berlin, University of Bonn, Swiss Federal Polytechnic, 1910-1911.

LOUIS ROUND WILSON, Ph. D., Professor of Library Administration.

A. B., University of North Carolina, 1899; Librarian, *ibid.*, 1901—; A. M., *ibid.*, 1902; Ph. D., *ibid.*, 1905; Associate Professor of Library Administration, 1907-1912; Professor of Library Administration, 1912—; Student, Columbia University, 1910.

TOM PEETE CROSS, Ph. D., Professor of English.

A. B., Hampden Sidney College, 1899; Instructor in English and Mathematics, *ibid.*, 1899-1900; S. B., *ibid.*, 1900; A. M., Harvard University, 1906; Edward Austin Fellow, *ibid.*, 1908-1909; Ph. D., *ibid.*, 1909; Parker (Travelling) Fellow in Celtic and Comparative Literature, *ibid.*, 1909-1910; Student, School of Irish Learning, Dublin, 1909 (Summer Session); Instructor in English, Harvard University, 1909-1911; Professor of English, Sweet Briar College, 1911-1912; Professor of English, University of North Carolina, 1912—

WARREN STONE GORDIS, Ph. D., Acting Professor of Latin.

A. B., University of Rochester, 1889; A. M., *ibid.*, 1891; Ph. D., University of Chicago, 1905; Professor of Latin, John B. Stetson University, 1888-1898; Acting President, *ibid.*, 1895-1896; Instructor in Latin, Lewis Institute, 1899-1900, 1904-1905; Professor of Latin, Ottawa University, 1905-1907; Professor of Greek and Latin, *ibid.*, 1907-1912; Acting Professor of Latin, University of North Carolina, 1912-1913.

THOMAS JAMES WILSON, JR., Ph. D., Associate Professor of Latin.

A. B., University of North Carolina, 1894; A. M., *ibid.*, 1896; Ph. D., *ibid.*, 1898; Instructor in Latin and Greek, *ibid.*, 1899-1901; Instructor in Latin, *ibid.*, 1901-1902; Student, University of Chicago, 1903, 1906; Associate Professor of Latin, University of North Carolina, 1902—; Registrar, *ibid.*, 1908—

WILLIAM STANLY BERNARD, A. M., Associate Professor of Greek.

Student, Episcopal Theological Seminary (Va.) 1893-1895; A. B., University of North Carolina, 1900; Librarian, *ibid.*, 1900-1901; Instructor in Greek, *ibid.*, 1901-1906; A. M., *ibid.*, 1904; Associate Professor of Greek, *ibid.*, 1906—; Student, University of Chicago, 1906, Columbia University, 1909, 1910, 1911.

ROBERT BAKER LAWSON, M. D., Associate Professor of Anatomy.

Student, University of North Carolina, 1897-1900; M. D., University of Maryland, 1902; Instructor in Anatomy, University of North Carolina, 1905-1906; Demonstrator in Anatomy, *ibid.*, 1906-1908; Associate Professor of Anatomy, *ibid.*, 1908—

GEORGE MCFARLAND MCKIE, A. M., Associate Professor of Public Speaking.

Graduate, Emerson College of Oratory, 1898; A. B., A. M., University of North Carolina, 1907; Student, Harvard University, 1907-1908; Instructor in English, University of North Carolina, 1899-1908; Associate Professor of Public Speaking, *ibid.*, 1908—

JOHN MANNING BOOKER, Ph. D., Associate Professor of English.

A. B., Johns Hopkins University, 1901; Student, *ibid.*, 1901-1903, 1905-1909; Student, University of Munich, 1904-1905; Student, University of Heidelberg, 1903-1904. 1905, 1909, 1910, 1911; Ph.D., *ibid.*, 1912; Associate Professor of English, University of North Carolina, 1909—

OLIVER TOWLES, Ph. D., Associate Professor of the Romance Languages.

A. B., University of Virginia, 1906; Student, Johns Hopkins University, 1906-1909; Student in France, 1908; Ph. D., Johns Hopkins University, 1912; Associate Professor of Romance Languages, University of North Carolina, 1909—

THOMAS FELIX HICKERSON, A. M., S. B., Associate Professor of Civil Engineering.

Ph. B., University of North Carolina, 1904; Instructor in Mathematics, *ibid.*, 1905-1908; A. M., *ibid.*, 1907; S. B., Massachusetts Institute of Technology, 1909; Associate Professor of Civil Engineering, University of North Carolina, 1910—

PARKER HAYWARD DAGGETT, S. B., Associate Professor of Electrical Engineering.

Assistant in Electrical Engineering, Harvard University, 1908-1909; S. B., *ibid.*, 1910; Acting Professor of Electrical Engineering, University of North Carolina, 1910; Associate Professor of Electrical Engineering, *ibid.*, 1910—

JAMES MUNSIE BELL, Ph. D., Associate Professor of Physical Chemistry.

B. A., University of Toronto, 1902; M. A., *ibid.*, 1905; Assistant in Chemistry, Cornell University, 1902-1903; Graduate Scholar in Chemistry, *ibid.*, 1903-1904; Sage Fellow in Chemistry, *ibid.*, 1904-1905; Ph. D., *ibid.*, 1905; Associate Professor of Physical Chemistry, University of North Carolina, 1910—

KENT JAMES BROWN, Ph. D., Associate Professor of German.

A. B., Dickinson College, 1901; Ph. D., University of Pennsylvania, 1905; Student, University of Berlin, 1904-1905; Student, University of Munich, 1909-1911; Assistant in German, University of Pennsylvania, 1902-1904; Instructor in German, State University of Iowa, 1911-1912; Associate Professor of German, University of North Carolina, 1912—

GEORGE KENNETH GRANT HENRY, A. M., Instructor in Latin.

A. B., Hamilton College, 1900; A. M., *ibid.*, 1904; Instructor in Mathematics, University of North Carolina, 1908-1909; Instructor in Latin, *ibid.*, 1909—

JOHN GROVER BEARD, Ph. G., Instructor in Pharmacy.

Assistant in Pharmacy, University of North Carolina, 1908-1909; Ph. G., *ibid.*, 1909; Instructor in Pharmacy, *ibid.*, 1909—

VIVIAN LEROY CHRISLER, A. M., Instructor in Physics.

A. B., Piedmont College, 1902; Assistant in Physics, University of Nebraska, 1906-1909; B. S., *ibid.*, 1908; A. M., *ibid.*, 1909; Instructor in Science and Mathematics, Piedmont College, 1909-1910; Instructor in Physics, University of North Carolina, 1910—

THEOPHILUS RANDOLPH EAGLES, JR., A. M., Instructor in Mathematics.

A. B., University of North Carolina, 1908; A. M., *ibid.*, 1912; Professor of Mathematics, and Science, Catawba College, 1908-1909; Professor of Mathematics, Bethany College, 1909-1910; Instructor in Mathematics, University of North Carolina, 1910—

GEORGE MARK SNEATH, A. M., Instructor in English.

A. B., Yale University, 1907; A. M., *ibid.*, 1910; Instructor in English, University of North Carolina, 1910 —

JOHN WAYNE LASLEY, A. M., Instructor in Mathematics.

A. B., University of North Carolina, 1910; Fellow in Mathematics, *ibid.*, 1910-1911; A. M., *ibid.*, 1911; Instructor in Mathematics, *ibid.*, 1911 —

DANIEL HUGER BACOT, JR., A. M., Instructor in History.

A. B., College of Charleston, 1908; Assistant in English, *ibid.*, 1908-1909; A. M., *ibid.*, 1909; Student, Harvard University, 1909-1911; A. M., *ibid.*, 1910; Instructor in History, University of North Carolina, 1911 —

WILBUR HIGH ROYSTER, A. M., Instructor in Latin.

A. B., University of North Carolina, 1907; Student, Johns Hopkins University, 1907-1908; Student, American School of Classical Studies, Athens, Greece, 1908-1909; Student, Harvard University, 1909-1912; A. M., *ibid.*, 1911; Instructor in Latin, University of North Carolina, 1912 —

WESLEY CRITZ GEORGE, A. M., Instructor in Zoology.

A. B., University of North Carolina, 1911; A. M., *ibid.*, 1912; Instructor in Zoology, University of North Carolina, 1912 —

CHARLES SCOTT VENABLE, A. M., Instructor in Chemistry.

A. B., University of North Carolina, 1910; Fellow in Chemistry, *ibid.*, 1910-1911; A. M., *ibid.*, 1911; Instructor in Chemistry, *ibid.*, 1912 —

EUGENE FRED PARKER, A. M., Instructor in the Romance Languages.

B. S., Norwich University, 1907; A. M., Harvard University, 1909; Instructor in the Romance Languages, Union College, 1909-1911; Instructor in the Romance Languages, University of North Carolina, 1912 —

JOHN ELIPHALET SMITH, M. S., Instructor in Geology.

B. S., Oregon Agricultural College, 1902; M. S., Iowa State College, 1911; Graduate Student, University of Missouri, 1911-1912; Assistant in Botany, Kansas State College, 1908-1910; Instructor in Geology, University of North Carolina, 1912 —

ALEXANDER MORSE ATKINSON, Instructor in Drawing.

Student, University of North Carolina, 1908-1912; Instructor in Drawing, University of North Carolina, 1912—

JAMES TALMAGE DOBBINS, A. M., Le Doux Fellow in Chemistry.

WILLIAM LEWIS JEFFRIES, A. M., Toch Fellow in Chemistry.

BURKE HAYWOOD KNIGHT, A. B., Fellow in Technical Chemistry.

LUCIUS EUGENE STACY, JR., A. B., Fellow in Organic Chemistry.

GRADY RUDISILL ROBERTS, Assistant in Anatomy.

WILLIAM BATTLE COBB, A. B., Assistant in Botany.

PAUL ROBY BRYAN, Assistant in Chemistry.

CARNIE BLAKE CARTER, Assistant in Chemistry.

FRANK DAVIES CONROY, Assistant in Chemistry.

CLARENCE BALLEW HOKE, Assistant in Chemistry.

JACKSON TOWNSEND, Assistant in Chemistry.

JOHN MADISON LABBERTON, Assistant in Electrical Engineering.

ROBERT CAMPBELL JURNEY, Assistant in Geology.

JOHN JAY HENDERSON, B. Sc., A. M., Assistant in German.

JAMES STEVEN SIMMONS, Assistant in Histology.

JULIAN NOLLEY TOLAR, Assistant in Histology.

JOHN ROBERT GENTRY, Assistant in the Library.

JESSE FORBES PUGH, Assistant in the Library.

EUGENE RALPH RANKIN, Assistant in the Library.

THOMAS MICHAEL RAMSAUR, Assistant in the Library.

GEORGE PICKETT WILSON, Assistant in the Library.

ADOLPHUS BART GREENWOOD, A. B., Assistant in Pharmacology.

JAMES BLAINE SCARBOROUGH, Assistant in Physics.

JASPER LOUIS PHILLIPS, Assistant in Surveying.

ALLYN RAYMOND BROWNSON, Assistant in Zoology.

OTHER OFFICERS

WALTER DALLAM TOY, M. A., Secretary of the Faculty.
LOUIS ROUND WILSON, Ph. D., Librarian.
NAN SPOTSWOOD STRUDWICK, Assistant Librarian.
ROBERT BAKER LAWSON, M. D., Director of the Gymnasium.
NAT J. CARTMELL, Director of Athletics.
THOMAS SPURGEON HUGHES, Assistant in the Gymnasium.
CARL DUFFY TAYLOR, Assistant in the Gymnasium.
JULIUS ALGERNON WARREN, Treasurer and Bursar.
CHARLES THOMAS WOOLLEN, Proctor.
THOMAS JAMES WILSON, JR., Ph. D., Registrar.
THEOPHILUS RANDOLPH EAGLES, A. M., Recorder of Absences.
EDMUND PLEASANT HALL, A. B., General Secretary of the
Young Men's Christian Association.

STANDING COMMITTEES OF THE FACULTY

The President is a member *ex-officio* of all committees.

EXECUTIVE. President Venable; Professors Herty, Graham, Patterson.

AUDITING. Professors Cain, Toy.

ATHLETICS. Professors Herty, Royster, Mangum, Henderson, Bain, Winston.

CATALOGUE. Professors Bain, T. J. Wilson, Daggett.

COMMONS. Professors Toy, McKie.

LIBRARY. Professors Raper, Coker, Royster, Dey.

RECORD. Professors Royster, Hamilton, L. R. Wilson, Hickerson.

UNIVERSITY MAGAZINE. Professors Cobb, Hamilton, Bain.

PUBLIC LECTURES. Professors Henderson, Bain, McGehee, MacNider, Coker.

DEBATES. Professors Williams, Raper, Graham.

SELF HELP. Professors Stacy, Hickerson.

UNIVERSITY PRESS ASSOCIATION. Professor Graham.

UNIVERSITY SERMONS. Professors Toy, Raper, McKie.

ALUMNI ORGANIZATIONS. Professors Bernard, T. J. Wilson, Patterson.

GRADUATE SCHOOL. President Venable; Professors Raper, Graham, Chase.

ENTRANCE CERTIFICATES. Professors Walker, Hamilton, Royster, Hickerson, Daggett.

SCHEDULES. Professors T. J. Wilson, Stacy.

LIBRARY APPROPRIATIONS. President Venable; Professors Raper, Graham.

COURSES OF STUDY. Professors Graham, Patterson, Bain.

COMMENCEMENT PROGRAM. Professors Graham, Pratt, Henderson.

MCNAIR LECTURES. President Venable; Professors Graham, Herty, Coker.

ABSENCES. Professor Stacy, Mr. Eagles.

ADVANCED STANDING. President Venable; Professors Chase, T. J. Wilson.

UNIVERSITY EXTENSION. Professors L. R. Wilson, Stacy, Patterson, Graham, Walker.

ENTRANCE CONDITIONS. Professor Bain, Mr. Eagles.

PART TWO

THE COLLEGE OF LIBERAL ARTS
THE SCHOOL OF APPLIED SCIENCE
THE GRADUATE SCHOOL

THE COLLEGE OF LIBERAL ARTS

There are three courses of instruction outlined in The College of Liberal Arts. The object of these courses is to provide a general, well-rounded, liberal education. The first two years of each allow but little election of studies. Beginning with the Junior year the election is wider, and a student can devote himself, to a large extent, to such special lines of study as he may prefer, although there are certain general restrictions designed to guard against too narrow a specialization. The first course, requiring both Greek and Latin, corresponds to the old classical course. The second course is a combination of ancient and modern languages and science. The third course is largely scientific. All of these courses lead to the one degree of Bachelor of Arts, and they are so balanced as to make the work equally difficult and worthy.

ADMISSION

Admission Into the Freshman Class

Candidates for admission into the Freshman Class are received by examination or by certificates from accredited schools.

Entrance examinations are held in September. Arrangements have been made with certain schools in the State whereby examinations for admission may be held in May, also, at the schools. The University will accept the uniform entrance examination papers of the Association of Colleges and Preparatory Schools of the Southern States, provided such papers are properly vouched for and sent sealed to the University for grading. Candidates for admission by examination must report at 9 A. M., *Monday, September 8, 1913*, to the Registrar, who will appoint time and place for examination.

Students who present certificates of work accomplished at preparatory schools and colleges may be admitted without examination, provided the certificates are approved. The right to examine, however, is reserved, when such a course is deemed necessary. Certificates must be made out on the printed forms

furnished on application to the Registrar, and should be sent in as early as possible in the summer vacation. They must be submitted for approval to the Committee on Entrance Certificates in the Alumni Building during the period of registration (*September 8, 9, 10, 1913*).

Subjects Accepted for Entrance

The complete list of subjects accepted for entrance is as follows:

*English <i>a, b, c</i> ,	3. units
History <i>a, b, c</i> ,	3. units
Mathematics <i>a, b, c, d</i> ,	3.5 units
Greek <i>a, b, c</i> ,	3. units
Latin <i>a, b, c, d, e</i> ,	4.7 units
French <i>a, b</i> ,	3. units
German <i>a, b</i> ,	3. units
Spanish,	2. units
Botany,	1. unit
Chemistry,	1. unit
Physics,	1. unit
Zoology,	1. unit
Drawing,	1. unit
Civics, .....	.5 unit
Physiography, .....	.5 unit
Physiology, .....	.5 unit

It will be noticed that each subject has a valuation by units. A unit means a definite amount of a subject satisfactorily completed in a reasonable length of time. For example, one unit in History means the satisfactory completion of a standard text book in English or United States History in a period of study continuing through an entire High School session; one-half unit in Solid Geometry means the completion of the four books of Solid Geometry in about one-half a session; the fourteen units mentioned below correspond to the four years of work in a good High School.

Unconditioned entrance to the undergraduate departments of the University requires a total of 14 units selected from the list above. A candidate, however, who desires to pursue any one of the regular courses leading to a Bachelor's degree

* For specific requirements in each of the subjects in this list see pp. 34-38.

must make his selection from the list of accepted subjects accord with the course to be pursued after entrance. Thus, the undergraduate course requiring Greek, Latin, Mathematics, and English necessitates the selection on the part of the candidate of a specified number of units in each of these branches (see below). The same is true, also, of entrance to all other courses.

The following tables indicate the requirements for entrance to each of the three courses leading to the degree of Bachelor of Arts (see page 39).

For entrance to group 1:

English <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
History <i>a</i> or <i>b</i> ,	2. units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
Greek <i>a</i> and <i>b</i> ,	2. units
Latin <i>a</i> , <i>b</i> , <i>c</i> , and <i>d</i> ,	3.7 units
Elective .....	.3 unit

For entrance to group 2:

English <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
History <i>a</i> or <i>b</i> ,	2. units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
Latin <i>a</i> , <i>b</i> , <i>c</i> , and <i>d</i> ,	3.7 units
French <i>a</i> or German <i>a</i> ,	2. units
Elective .....	.3 unit

For entrance to group 3:

English <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
History <i>a</i> or <i>b</i> ,	2. units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
French <i>a</i> ,	2. units
German <i>a</i> ,	2. units
Science	1. unit
Elective	1. unit

At the discretion of the Committee on Entrance Certificates candidates may be admitted with conditions, provided the total number of units offered does not fall below the minimum of 12 units, and provided the conditions are of such nature that, in the judgment of the Committee, they may be removed according to the regulations given in the next paragraph. The Com-

mittee has the discretionary power to admit certain candidates whose credits fall below 12 units, if, in the opinion of the Committee, the maturity of the candidate, who must be at least twenty-one years of age, justifies such action. Candidates thus admitted will be classed as special students.

Entrance conditions in any subject must be made up by September of the following year. A student who fails to comply with this regulation will not be allowed to register for any course in his Sophomore year.

The requirements in each of the subjects accepted for entrance are as follows:

- ENGLISH: (1913-1915) (a) Grammar and Rhetoric 1. unit
(b) Reading and Practice 1. unit

Two from each of the following groups:—

- A. 1. Selections from the *Old Testament* (the chief narrative episodes in *Genesis*, *Exodus*, *Joshua*, *Judges*, *Samuel*, *Kings*, and *Daniel*, and the books of *Ruth* and *Esther*); 2. the *Odyssey*, (English translation), (Books I, II, III, IV, V, XV, XVI, XVII may be omitted); 3. the *Iliad*, (English translation), (Books XI, XIII, XIV, XV, XVII, XXI may be omitted); 4. Virgil's *Aeneid* (English translation).
A unit from any other group may be substituted for any unit in this group.
- B. 1. Shakespeare's *The Merchant of Venice*; 2. *A Midsummer Night's Dream*; 3. *As You Like It*; 4. *Twelfth Night*; 5. *Henry the Fifth*; 6. *Julius Caesar*.
- C. 1. Defoe's *Robinson Crusoe*, (Part I); 2. Goldsmith's *The Vicar of Wakefield*; 3. either Scott's *Ivanhoe* or *Quentin Durward*; 4. Hawthorne's *The House of Seven Gables*; 5. either Dickens's *David Copperfield* or *A Tale of Two Cities*; 6. Thackeray's *Henry Esmond*; 7. Mrs. Gaskell's *Cranford*; 8. George Eliot's *Silas Marner*; 9. Stevenson's *Treasure Island*.
- D. 1. Bunyan's *The Pilgrim's Progress*, (Part I); 2. *The Sir Roger de Coverley Papers* in *The Spectator*; 3. Franklin's *Autobiography*; 4. Irving's *Sketch Book*; 5. Macaulay's *Essays on Lord Clive* and *Warren Hastings*; 6. Thackeray's *English Humourists*; 7. Selections from Lincoln (including at least the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the last public Address, and Letter to Horace Greeley) along with a brief memoir or estimate; 8. Parkman's *The Ore-*

gon Trail; 9. Either Thoreau's *Walden*, or Huxley's *Autobiography* and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; 10. Stevenson's *An Inland Voyage* and *Travels with a Donkey*.

- E. 1. Palgrave's *Golden Treasury*, (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, and Burns; 2. Gray's *An Elegy in a Country Churchyard* and Goldsmith's *The Deserted Village*; 3. Coleridge's *The Rime of the Ancient Mariner* and Lowell's *The Vision of Sir Launfal*; 4. Scott's *The Lady of the Lake*; 5. Byron's *Childe Harold*, Canto IV, and *The Prisoner of Chillon*; 6. Palgrave's *Golden Treasury* (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; 7. Poe's *The Raven*, Longfellow's *The Courtship of Miles Standish*, and Whittier's *Snow-bound*; 8. Macaulay's *Lays of Ancient Rome* and Arnold's *Sohrab and Rustum*; 9. Tennyson's *Gareth and Lynette*, *Launcelot and Elaine*, and *The Passing of Arthur*; 10. Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*.

The candidate is expected to have sufficient knowledge of these books to enable him to answer general questions on their substance. The form of the examination will be the composition of paragraphs on a number of topics connected with the works. The ability of the candidate to express his ideas in clear, accurate English is a main consideration. No applicant should present himself who is notably deficient in spelling, grammar, or paragraphing.

(c) Study and Practice 1. unit

Shakespeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, and *Comus*; Burke's *Speech on Conciliation with America*, or Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; Macaulay's *Life of Johnson*, or Carlyle's *Essay on Burns*.

The questions on these books will be on subject matter and structure.

HISTORY: (a) The histories of the United States, Greece, and Rome, as outlined in the best text books for high

- schools 2. units
- (b) The histories of the United States and England as outlined in the best text books for high schools, 2. units
- (c) Mediæval History 1. unit
- MATHEMATICS: (a) Algebra 1.5 units
The whole of a high school algebra including quadratic equations, binomial theorem, and progressions.
- (b) The whole of Plane Geometry..... 1. unit
- (c) The whole of Solid Geometry..... .5 unit
- (d) Trigonometry5 unit
Plane trigonometry and spherical trigonometry through right triangles.
- GREEK: (a) Grammar and Composition..... 1. unit
Acquaintance with the more usual forms and constructions; simple narrative in English, based upon Xenophon's Anabasis, to be translated into Greek.
- (b) Xenophon 1. unit
The first four books of the Anabasis.
- (c) Homer 1. unit
The first three books of the Iliad, (omitting II., 494—end), with study of Homeric forms, constructions, and prosody.
- LATIN: (a) Grammar and Composition..... 1. unit
Forms, syntax, and prosody; simple narrative in English, based upon the prose read, to be translated into Latin.
- (b) Cæsar 1. unit
The first four books of the Gallic War.
- (c) Cicero7 unit
The four orations against Catiline.
- (d) Vergil 1. unit
The first six books of the Æneid, study of hexameter verse.
- (e) Cornelius Nepos 1. unit
The first fifteen lives.

FRENCH: (a) Elementary 2. units

The forms and uses of the various parts of speech, including irregular verbs; translation of 250 or more pages of easy prose into idiomatic English; translation of simple English sentences into French; pronunciation.

(b) Intermediate 1. unit

Translation of 400 or more pages of French of ordinary difficulty.

GERMAN: (a) Elementary 2. units

Inflection, including the most common irregular verbs; the ordinary laws of German syntax; translation of 200 or more pages of easy German into idiomatic English; translation of simple English sentences, based upon passages read, into German.

(b) Intermediate 1. unit

Translation of 400 or more pages of German of ordinary difficulty.

SPANISH: Elementary 2. units

Inflection, including the most common irregular verbs; ordinary laws of syntax; translation of 250 pages or more of easy Spanish into idiomatic English; translation of simple English sentences, based upon the passages read, into Spanish.

BOTANY: 1. unit

A course such as is contained in any standard text book; laboratory work.

CHEMISTRY: 1. unit

A course such as is contained in any standard text book; laboratory work.

PHYSICS: 1. unit

A course such as is contained in Millikan and Gale's Physics or Carhart and Chute's High School Physics; laboratory work such as is outlined in Millikan and Gale's Physics.

PHYSIOGRAPHY:5 unit

A course such as is contained in any standard text book.

- PHYSIOLOGY:**5 unit
A course such as is contained in any standard text book.
- ZOOLOGY:** 1. unit
A year's course such as is contained in any standard text book.
- CIVICS:**5 unit
A course such as is contained in any standard text book.
- DRAWING:** 1. unit
A year's work, including simple geometrical plane and solid figures, simple pieces of machinery; elementary rules of perspective, light, and shade, as applied in free-hand sketching.

Admission to Advanced Standing

A candidate for advanced standing may be admitted to the Sophomore, Junior, or Senior Class, with or without complete examination. He is subject not only to the examinations required of candidates for admission into the Freshman Class, but to special examinations both in all the required studies already pursued by the class which he desires to enter, and in as many elective studies as would have been required of him as a member of that class. When satisfied with the apparent fitness of the candidate, the examining committee may, in spite of his deficiencies in some studies, admit him to an advanced class; but a candidate so admitted is not recommended for the degree until the deficiencies are made good. The examining committee may accept, also, with proper restrictions, the official report of work satisfactorily completed at a college or university of good standing in place of an examination upon such previous work.

A candidate for advanced standing should present himself for examination on the same days and at the same hours as candidates for admission into the Freshman Class.

CURRICULUM

COURSES LEADING TO THE DEGREE OF BACHELOR OF ARTS

In order to be recommended for the degree of Bachelor of Arts, the student must have passed satisfactory examinations in all the studies required in one of the groups prescribed for the Freshman and Sophomore years, and in a number of elective studies during the Junior and Senior years sufficient to amount to an average of fifteen hours of lectures or recitations a week for each of these years.

The group of studies selected for the Freshman and Sophomore years must correspond to the group of subjects offered for entrance.

Freshman Year

GROUP 1.	GROUP 2.	GROUP 3.
English I (3)*	English I (3)	English I (3)
Mathematics I (4)	Mathematics I (4)	Mathematics I (4)
Greek I (4)	Select } Greek I (4)	German I (3)
Latin I (4)	one } Latin I (4)	French I (3)
Pub.Speaking I (1)	Select } German I (3)	History I (3)
	one } French I (3)	Pub.Speaking I (1)
	History I (3)	
	Pub.Speaking I (1)	

Sophomore Year

GROUP 1.	GROUP 2.	GROUP 3.
Select } English 2 (3)	English 2 (3)	English 2 (3)
one } Greek 2 (3)	Select } Greek 2 (3)	Math. 2 (3)
	two } Latin 2 (3)	Chem. I (3)
Select } Latin 2 (3)		Physics I (3)
one } Greek 2 (3)		Elective (3)
	German I (3)	
Select } Latin 2 (3)	two } French I (3)	
one } German I (3)		
	German 2 (3)	
	French 2 (3)	
Select } Math. 2 (3)	Select } Math. 2 (3)	
one } Chem. I (3)	one } Physics I (3)	
	Elective (3)	

SOPHOMORE ELECTIVES: Greek 2 (3), Latin 2 (3), German 1 (3), French 1 (3), History 3 (3), History 8 (3), Botany 1 (3), Chemistry 1 (3), Geology 1 (3), Mathematics 2 (3), Physics 1 (3), Zoology 1 (3).

* Numerals in parentheses indicate the number of hours a week.

The selection made must in each case be submitted to Professor Howe for approval.

Junior Year

ELECTIVE STUDIES amounting to fifteen hours a week, of which at least one study must be taken from each of the following groups, A, B, and C:

A

English 3 (3), 5 (3), 6 (3), 8 (3), 9 (2), 10 (3), 11 (3), 12 (2), 14 (3), 16 (2).
 Public Speaking 2 (2), 3 (2), 4 (2).
 Greek 2 (3), 4 (2), 5 (1), 6 (2), 7 (3), 9 (1), 10 (1½), 14A (1), 14B (1), 15 (2), 16 (1), 19 (2).
 Latin 2 (3), 4 (2), 5 (2), 6 (2), 7 (1), 7A (1), 8 (1), 9 (2), 10 (2), 13 (2), 15 (2), 16 (1).
 German 2A (3), 2B (3), 3 (2), 4 (3), 5 (3), 6 (3), 7A (2), 7B (2).
 French 2 (3), 3 (3), 4A (3), 4B (3), 5 (3).
 Spanish 1 (3), 2 (3), 3 (2).
 Italian 1 (3).

B

History 2 (2), 3 (3), 4 (2), 5 (2), 6 (1), 7 (3), 8 (3), 9 (2), 11 (1), 12A (1), 12B (1), 15 (2).
 Philosophy 1 (3), 2 (2), 3 (2), 4 (3), 6 (3).
 Economics 1 (3), 4 (3), 5 (2).
 Education 1 and 2 (3), 3 (1½), 4 (1½), 5 (1), 6 (1), 9 (2), 14 (2).

C

Mathematics 2 (3), 3 (3), 3A (2), 3B (2), 3D (1), 3E (1), 4 (3), 5 (3), 11A (1), 14 (2).
 Physics 1 (3), 2 (2), 4 (2), 5 (2), 6 (2), 10 (3), 15 (2).
 Chemistry 1 (3), 2 (3), 3 (2), 4 (3), 5 (3), 7 (3), 16 (1½).
 Zoology 1 (3), 2 (3), 3 (5).
 Botany 1 (3), 2 (3), 3 (3).
 Geology 1 (3), 2 (3), 3 (3), 4 (3), 5 (3), 8 (2), 8A (1), 12 (1), 13 (1½).

The selection made must in each case be submitted to Professor Patterson for approval.

Senior Year

ELECTIVE STUDIES amounting to fifteen hours a week, subject to the condition stated above for the Junior Year. In addition to the courses named for Junior Year the following courses are also open to Seniors:

A

English 7.
Greek 17 (1).
Latin 14 (1).

B

History 10 (2).
Economics 2 (2), 3 (2).
Education 7 (3).
Law (3).

C

Mathematics 3C (1), 6 (3), 7 (2), 7A (3), 8 (3), 10 (4), 11B (1),
13 (2), 16 (2).
Physics 11 (4), 12A (1), 12B (1), 13B (1), 14 (3).
Chemistry 5A (2), 6 (1), 7A (2), 7B (2), 8 (5), 17 (3).
Geology 6 (3), 7 (3).
Anatomy 1 (3).
Physiology 1 (1½).

The selection made must in each case be submitted to the
Dean of the College of Liberal Arts for approval.

BURKE HAYWOOD KNIGHT, A. B., *Fellow in Technical Chemistry.*

LUCIUS EUGENE STACY, JR., A. B., *Fellow in Organic Chemistry.*

PAUL ROBY BRYAN, *Assistant in Chemistry.*

CARNIE BLAKE CARTER, *Assistant in Chemistry.*

FRANK DAVIES CONROY, *Assistant in Chemistry.*

CLARENCE BALLEW HOKE, *Assistant in Chemistry.*

JACKSON TOWNSEND, *Assistant in Chemistry.*

[For description of Chemical Laboratories, see page 185.]

1. General Descriptive Chemistry: a study of the elements and their compounds, including an introduction to Organic Chemistry; lectures with laboratory work. Required of Sophomores in Group 3, elective in Groups 1 and 2. *Both terms, three hours.* Professor HERTY, and Messrs. VENABLE and CARTER.

Laboratory fee, \$1.25 a term.

2. Technical Chemistry: (a) Industrial and Agricultural Chemistry; glass-making, acids, alkalies, phosphates, fertilizers, foods, clothing, hygiene, etc. (b) Metallurgy: mining, treatment of ores, smelting, chlorination, fuel, building materials, etc. Junior and Senior elective; prerequisite, Chemistry 1. *Both terms, three hours.* Professor HERTY.

3. Qualitative Analysis: laboratory work with lectures. May be taken with Chemistry 1. Junior and Senior elective. *Both terms, two hours.* Professor WHEELER and Mr. HOKE.

Laboratory fee, \$5.00 a term.

4. Quantitative Analysis: laboratory work, lectures, and stoichiometric exercises; a grounding in analytical methods. Junior and Senior elective; prerequisite, Chemistry 1 and 3. *Both terms, three hours.* Associate Professor BELL.

Laboratory fee, \$5.00 a term.

5. Organic Chemistry: Junior and Senior elective; prerequisite, Chemistry 1 and 3. *Both terms, three hours.* Professor WHEELER.

Laboratory fee, \$4.00 a term.

- 5A. Organic Chemistry: laboratory work chiefly. This course is designed to give further practice in dealing with organic substances. Senior elective; prerequisite, Chemistry 5 or 10. *Both terms, two hours.* Professor WHEELER.

Laboratory fee, \$6.00 a term.

6. The History of Chemistry; Senior elective; prerequisite, Chemistry 1, 3, 4, 5. *Spring term, two hours.* President VENABLE.

7. Elementary Physical Chemistry: Junior and Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.* Associate Professor BELL.

Laboratory fee, \$2.00 a term.

- 7A. Physical Chemistry: lectures and text books, with laboratory work. Senior elective; prerequisite, Chemistry 7. *Both terms, two hours.* Associate Professor BELL.

Laboratory fee, \$2.00 a term.

- 7B. Electro-Chemistry: theory and application of electricity to chemical processes. Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, two hours.* Associate Professor BELL.

Laboratory fee, \$2.00 a term.

8. Quantitative Analysis: laboratory work; gas analysis and extension of course 4 along technical lines; bacteriological examination of water (with Professor MacNider); research. Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, five hours.* Professor HERTY.

Laboratory fee, \$10.00 a term.

16. Inorganic Chemistry: a detailed study of the reactions of the elements and their compounds. Lectures and text book. Junior and Senior elective; prerequisite,

Chemistry 1, 3, and 4. *Spring term, three hours.* Professor HERTY.

17. Quantitative Analysis: laboratory work. Extension of course 4 along technical lines. Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.* Professor HERTY.

Laboratory fee, \$5.00 a term.

The Journal Club meets fortnightly. The current journals, American, English, German, and French, both the purely scientific and the technical, are reviewed by the students and instructors. Attendance is expected of students in advanced courses.

For courses 3A, 4A, 9, and 10, see School of Medicine and School of Pharmacy.

For courses 11, 12, 13, 14, and 15, see Graduate School.

DEPARTMENT OF ECONOMICS AND FINANCE

CHARLES LEE RAPER, Ph. D., *Professor of Economics.*

1. General Economics: A general study of the principles which are involved in the production, distribution, and consumption of wealth, and in the relation of wealth to welfare; a special study of labor, land, capital, business management, and the state, as factors in the production and distribution of wealth. Raper's *Principles of Wealth and Welfare*, and Seligman's *Principles of Economics*. Junior and Senior elective. *Both terms, three hours.* Professor RAPER.
2. Public Finance: A general study of the principles which are involved in the revenues and expenditures of the state, and in the relation of the state to the industries of its citizens; a special study of taxation and the tariff. Lectures, readings, and reports. Adams' *The Science of Finance*. Senior elective. *Both terms, two hours.* Professor RAPER.

Given in alternate years; to be omitted in 1913-1914.

3. Economic Institutions and Thought in England and the United States: A general study, largely from the historical point of view, of the economic institutions and the systems of economic thought in England and the

United States; a special study of socialism. Lectures, readings, and reports. Cheyney's *Industrial and Social History of England*, Brooks' *The Social Unrest*, Spargo's *Socialism*, and the *Communist Manifesto* (Marx and Engels). Senior elective. *Both terms, two hours.* Professor RAPER.

4. Money, Banking, and Insurance: (a) A general study of the principles, functions, and forms of money and banking; a special study of current monetary problems. Lectures, readings, and reports. Kinley's *Money*, Dunbar's *Theory and History of Banking*, (2nd Ed.), and Jones' *Economic Crises*. (b) A general study of the principles and methods of insurance; a special study of the regulation of insurance by the state. Lectures and readings. Junior and Senior elective. *Both terms, three hours.* Professor RAPER.
5. Transportation and Labor: (a) A general study, from the historical and critical points of view, of railway transportation in such representative countries as Great Britain, France, Italy, Germany, and the United States; the general conditions of traffic, the passenger service and rates, the freight service and rates, and the ideals and machinery of the state's relation receive special consideration. Lectures, readings, and reports. Raper's *Railway Transportation: a History of its Economics and its Relation to the State*. (b) Labor as an agent in the production of wealth; wages; some wages problems, as, for instance, woman and child labor, immigration, sweating system, and poverty; some of the solutions of these problems, as, for instance, strikes, boycotts, trades unions, conciliation and arbitration, profit-sharing, co-operation, industrial education, and the factory acts; the relation of the state to wages problems. Adams and Sumner's *Labor Problems*. Junior and Senior elective. *Both terms, two hours.*

Given in alternate years; to be given in 1913-1914.

A certificate is granted to a student who has completed, with credit, courses 1-5.

DEPARTMENT OF EDUCATION

MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy.*

NATHAN WILSON WALKER, A. B., *Professor of Secondary Education.*

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

LOUIS ROUND WILSON, Ph. D., *Professor of Library Administration.*

1. The Science of Teaching: the practical application of scientific principles to the teaching of elementary branches; a brief study of modern educational theories; preparation of model lessons according to pedagogical principles; lectures, text books, and theses. Junior and Senior elective, open only to those who intend to teach (not counted for a degree unless Education 2 is also taken). *Fall term, three hours.* Professor NOBLE.
2. The Art of Teaching: a careful study of the principles and methods involved in successfully teaching those studies usually taught in the best public and private elementary schools; lectures, text books, and theses. Junior and Senior elective, open only to those who intend to teach; prerequisite, Education 1. *Spring term, three hours.* Professor NOBLE.
3. Science and Practice of Education: a study of modern education from the view-point of both teacher and citizen; the development and arrangement of a High School course of study; lectures, text books, parallel readings, theses. Junior and Senior elective. *Fall term, three hours.* Professor NOBLE.
4. The General History of Education: the development of educational ideals in the past; the effect of the pedagogical doctrines of the great educators of the past upon modern educational systems; lectures, text book, parallel readings, criticisms, theses. Junior and Senior elective. *Spring term, three hours.* Professor NOBLE.

5. High School Organization: a study of the organization of the American high school with special attention to its curricula and methods. Text-books, lectures, and assigned readings. Brown's *The American High School* and DeGarmo's *Principles of Secondary Education*. Open to teachers. *Fall term, two hours*. Professor WALKER.
6. High School Administration: a study of the principles and problems of American high school administration. Text-books, lectures, and assigned readings. Hollister's *High School Administration*. Open to teachers; prerequisite, Education 5. *Spring term, two hours*. Professor WALKER.
7. Educational Psychology: a study of some of the chief psychological traits of the developing individual and their importance for education. Lectures, readings, theses. Senior elective: prerequisite, Philosophy 1. *Both terms, three hours*. Professor CHASE.
9. Education and Society: a study of education as a social force; the social nature of educational institutions; the social functions of the modern school. Lectures, readings. Junior and Senior elective. *Both terms, two hours*. Professor CHASE.
14. Current Education: a study of present educational tendencies as seen in typical rural and city school systems, and the development and supervision of the American public school. For teachers who wish to prepare for work as principals and superintendents. Junior and Senior elective. *Both terms, two hours*. Professor NOBLE.

For courses 12 and 13, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1 to 4 inclusive, together with either courses 5 and 6 or courses 7 and 9.

Library Administration

1. Library Administration: a study of library administration, bibliography, book selection, reading courses, debate references, indexing, and technical library meth-

ods; practice in the University library. This course is open to Library Fellows and Assistants; upon the approval of the Committee on Courses, it may also be counted for the degree by students preparing for library positions. *Both terms, two hours.* Professor WILSON.

DEPARTMENT OF ENGLISH

JAMES FINCH ROYSTER, Ph. D., *Professor of English.*

EDWARD KIDDER GRAHAM, A. M., *Professor of English.*

TOM PEETE CROSS, Ph. D., *Professor of English.*

GEORGE MCFARLAND MCKIE, A. M., *Associate Professor of Public Speaking.*

JOHN MANNING BOOKER, Ph. D., *Associate Professor of English.*

GEORGE MARK SNEATH, A. M., *Instructor in English.*

1. Types of Literature: the short story, the novel, the essay; the lyric, the epic, the ballad, and the drama. Practical rhetoric and theme writing during the second term. This course lays the foundation for the student's later studies in both literature and composition. Required of Freshmen. *Both terms, three hours.* Professors ROYSTER and CROSS, Associate Professor BOOKER, and Mr. SNEATH.
2. First term: Rhetoric and Composition; preparation and criticism of daily and weekly themes. Second term: History of English Literature. Reports on assigned readings. Required of Sophomores. *Both terms, three hours.* Professor ROYSTER, Associate Professor BOOKER, and Mr. SNEATH.
3. Advanced Composition: constant practice throughout the year in the various forms of prose discourse. Lectures and discussions. Junior and Senior elective; prerequisite, a grade of 80 on English 2. *Both terms, three hours.* Professor GRAHAM.
4. Essays and orations: lectures; analysis of representative essays and orations; construction of essays and

orations. Junior and Senior elective. *Both terms, three hours.* Professor GRAHAM.

To be omitted in 1913-1914. See course 14.

5. Shakespeare. First term: The Rise and Development of the Drama in England, from the Miracle Plays through Marlowe. Second term: A detailed study of four plays of Shakespeare and a rapid reading of the remainder. Junior and Senior elective. *Both terms, three hours.* Professor GRAHAM.
6. Introductory course in Old English and Middle English. In the first term a careful study is made of Old English grammar and syntax; a large amount of easy Old English prose is read. Text: Bright's *Anglo Saxon Reader*. In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. Texts: Greenough's *Selections from Chaucer*; Emerson's *Middle English Reader*. The aim of the course is to acquaint the student with the main facts of the beginning and development of the English language. The language of the older periods is considered in its relation to present-day English; many points of confusion in Modern English, unexplained by the rules of logical grammar, are made clear. Junior and Senior elective. *Both terms, three hours.* Professor ROYSTER.

The attention of students electing this course is called to course 13 in the Latin Department.

7. Advanced course in Old English and Middle English. The work of the first term continues the study of Old English grammar, particularly in its relation to that of the other Indo-European languages, and takes up the reading of Old English poetry. Texts: Wyatt's *Beowulf*; Blackburn's *Exodus and Daniel*. A study of Chaucer's minor poems will be the basis of the work of the second term, 1914. Senior elective; prerequisite, English 6 or its equivalent. *Both terms, two hours.* Professor ROYSTER.

8. History of the English Language. This course supplements English 6. It will trace the growth of the English language from its beginnings in England until to-day. Junior and Senior elective. *Both terms, three hours.* Professor ROYSTER.
9. The Contemporary Drama. In this course the condition of the stage and the character of the plays in England from 1840 to the present day will be sketched. The lectures will deal particularly with the imitation and adaptation of French plays, the attempts to put into dramatic form problems of contemporary life and manners, the sociological and artistic tendencies of the modern drama, the manifestations of decadence, the influence of Ibsen, the recent German drama, the literary drama, and the present day outlook. A large number of representative modern dramas will be assigned for reading. Junior and Senior elective. *Both terms, two hours.* Professor ROYSTER.
10. American Literature. American Literature in the light of American history and culture. Special attention to the literature of New England (1825-1892), to Southern literature since the Civil War, and to the western humorists. Junior and Senior elective. *Both terms, three hours.* Associate Professor BOOKER.
11. Renaissance and Elizabethan Literature. (1557-1642.) A study of the principal writers, except Shakespeare, from the publication of Tottel's *Miscellany* to the outbreak of the Civil War. Junior and Senior elective. Open to Sophomores by special permission of the Department. *Both terms, three hours.* Professor CROSS.
12. Eighteenth Century Literature. (1660-1799.) A study of Classicism and the Beginnings of Romanticism. Junior and Senior elective. Open to Sophomores by special permission of the Department. *Both terms, two hours.* Professor CROSS.
14. Nineteenth Century Literature. (1799-1892.) Emphasis in the first term on Wordsworth, Byron, and Shelley; in the second on Arnold, Tennyson, and

Browning. Junior and Senior elective. Open to Sophomores by special permission of the Department. *Both terms, three hours.* Professor GRAHAM.

16. Journalism. Practice in the forms of journalistic composition. Junior and Senior elective. *Both terms, two hours.* Professor ROYSTER.

An honor certificate, carrying the recommendation of the Department, is granted a student who has completed with an average grade of not less than 85 courses 1, 2, 6, 11, 12, and 14.

Public Speaking

1. A course in declamation and in simple extempore speaking on subjects of current interest. The aim of this course is to correct faults in speech and to form the habit of simple, clear, direct speaking. Required of Freshmen. *Both terms, one hour.* Associate Professor McKIE.
2. The Forms of Public Address: the argumentative speech, the commemorative address, the after dinner speech, the eulogy. Open to Sophomores who have attained a grade of 2 in English 1, and to Juniors and Seniors; prerequisite, Public Speaking 1. *Both terms, two hours.* Associate Professor McKIE.
3. Debate: the preparation of briefs and forensics, and practice in oral debate. Junior and Senior elective; prerequisite, Public Speaking 1. *Both terms, two hours.* Associate Professor McKIE.
4. Interpretative Speaking and Reading: a course designed to develop through vocal expression an appreciation of good literature, and an ability to interest others in the works of great writers. Open to Sophomores who have attained a grade of 2 in Public Speaking 1, and to Juniors and Seniors. *Both terms, two hours.* Associate Professor McKIE.

DEPARTMENT OF GEOLOGY AND MINERALOGY

COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*

JOSEPH HYDE PRATT, Ph. D., *State Geologist and Professor of Economic Geology.*

JOHN ELIPHALET SMITH, M. S., *Instructor in Geology.*

ROBERT CAMPBELL JURNEY, *Assistant in Geology.*

[For description of Geological Laboratories, see page 188.]

1. Elementary Geology: lectures with field work; laboratory work on the common minerals and rocks. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor COBB and Mr. JURNEY.

Laboratory fee, \$3.00 for the spring term.

2. Mineralogy: lectures with laboratory and field work; Lewis's *Tables* and Dana's *Manual of Mineralogy*. Junior and Senior elective; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, \$5.00 a term.

3. General Critical Geology: lectures with field work; laboratory work on rocks and fossils; theses. Junior and Senior elective. *Both terms, three hours.* Professor COBB.

Laboratory fee, \$3.00 for the fall term, \$5.00 for the spring term.

4. Economic Geology: ore deposits and minerals; lectures with laboratory and field work; Junior and Senior elective; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, \$1.00 a term.

5. Petrography: lectures, laboratory work, and theses. Junior and Senior elective; prerequisite, Geology 1 and 2. *Both terms, three hours.* Mr. SMITH.

6. Advanced field work and special research in Geology or Geography; problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Senior elective; prerequisite, two courses in Geology. *Both terms, three hours.* Professor COBB.

7. Advanced course in Physiography. Senior elective; prerequisite, Geology 1 and Zoology 1 or Botany 1. *Both terms, three hours.* Professor COBB.

Laboratory fee, \$2.00 a term.

8. Origin and Nature of Soils: field work, laboratory work, and theses. Students in this course are expected to keep Saturday open for field work. Junior and Senior elective; prerequisite, Geology 1 and 2, Chemistry 1 and 3, Botany 1. *Both terms, two hours.* Professor COBB.

Laboratory fee, \$3.00 a term.

- 8A. Soils and Stones for Road Making: field work, laboratory work; prerequisite, Geology 1. *Both terms, one hour.* Mr. SMITH.

Laboratory fee, \$1.00 a term.

11. Mineral and Ore Deposits: lectures supplemented by laboratory and field work; prerequisite, Geology 1 and 2 and Chemistry 3. *Twenty-four lectures (Spring term).* Professor PRATT.

12. Advanced Work in Mineralogy. Senior elective. *One hour.* Professor PRATT.

13. Advanced Geological Field Work and Special Research: studies in the Deep River and Wadesboro areas of the Triassic rocks; a brief examination of the Potomac, Eocene, Lafayette, and Columbia deposits. This course is given in the summer. It covers five weeks, of which one is spent in Chapel Hill with daily meetings, the remaining four weeks are devoted to field work. Students who take this course will be expected to devote all their time to it. Junior and Senior elective. *One term, three hours.* Professor COBB.

The Geological Seminary meets fortnightly for review and discussion of current geological literature, and for the presentation of original papers.

For course 9, see Graduate School.

For courses 10 and 10A, see School of Applied Science.

DEPARTMENT OF GERMANIC LANGUAGES

WALTER DALLAM TOY, M. A., *Professor of the Germanic Languages and Literatures.*

KENT JAMES BROWN, Ph. D., *Associate Professor of German.*

JOHN JAY HENDERSON, A. M., *Assistant in German.*

A. Elementary Course: grammar; written and oral exercises; translation; sight reading. This course may be counted for entrance only. *Both terms, three hours.* Professor TOY, Associate Professor BROWN and Mr. HENDERSON.

1. Translation, sight reading, composition, grammar. Required of Freshmen in Group 3, elective in Group 2; Sophomore elective. *Both terms, three hours.* Professor TOY and Associate Professor BROWN.

2A. Schiller: *Maria Stuart*, *Wallenstein's Tod*; Goethe: *Egmont*, *Iphigenie auf Tauris*; Lessing: *Minna von Barnhelm*. Sophomore elective in Group 2; Junior and Senior elective; prerequisite, German 1. *Both terms, three hours.* Professor TOY.

2B. Wide reading of modern German prose, with lectures on the literature in the nineteenth century since Goethe's death. Junior and Senior elective; prerequisite, German 1. *Both terms, three hours.* Associate Professor BROWN.

3. History of German Literature: lectures with parallel reading and written reports. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, two hours.* Professor TOY.

4. Middle High German: Paul's *Mittelhochdeutsche Grammatik*; Bachmann's *Mittelhochdeutsches Lesebuch*; translation into New High German. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, three hours.* Associate Professor BROWN.

This course alternates with course 5: to be omitted in 1913-1914.

5. Old High German: Braune's *Althochdeutsche Grammatik*; Braune's *Althochdeutsches Lesebuch*. Junior

and Senior elective; prerequisite, German 2A or 2B.
Both terms, three hours. Associate Professor BROWN.

This course alternates with course 4; to be given in 1913-1914.

6. Gothic: Braune's *Gotische Grammatik*; selected parts of Paul's *Grundriss der Germanischen Philologie*. Introduction to Germanic Philology. Junior and Senior elective; prerequisite, German 2A, or 2B, or 3. *Both terms, three hours.* Professor TOY.

- 7A. Goethe: Goetz von Berlichingen, Tasso, Dichtung und Wahrheit, Hermann und Dorothea. Junior and Senior elective; prerequisite, German 2A, or 2B, or 3. *Both terms, two hours.* Associate Professor BROWN.

This course may be elected only after consultation with the instructor.

- 7B. Goethe: Faust, Parts I and II. Junior and Senior elective; prerequisite, German 2A, or 2B, or 3. *Both terms, two hours.* Professor TOY.

This course may be elected only after consultation with the instructor. To be given in 1913-1914.

A certificate is granted to a student who has completed with credit any four courses exclusive of course A.

DEPARTMENT OF GREEK

CHARLES WESLEY BAIN, M. A., *Professor of the Greek Language and Literature.*

WILLIAM STANLEY BERNARD, A. M., *Associate Professor of Greek.*

- A. A course for students who have had no opportunity of studying Greek in the preparatory schools. This course may be counted for entrance only. Moss's *First Greek Reader*; Babbitt's *Greek Grammar*; Xenophon's *Anabasis*. *Both terms, four hours.* Associate Professor BERNARD.

1. Xenophon's Symposium: review of important grammatical principles; Homer's Iliad, books I, II, and III, and Odyssey, book VI; Lysias, Selected Speeches. Reading at sight. Required of Freshmen in Group 1, elective in

Group 2. *Both terms, four hours.* Professor BAIN and Associate Professor BERNARD.

2. Plato, *Apology* and *Crito*; Euripides, *Hecuba*; Aristophanes, *Frogs*; reading at sight; lectures on Greek Literature. Sophomore elective in Groups 1 and 2. *Both terms, three hours.* Professor BAIN.
3. Prose Composition: elementary course, intended as supplementary to Greek 1. Open to students who are taking Greek 1 or 2. *Both terms, one hour.* Professor BAIN.
4. Lectures on Old Greek Life: History of Greek Art; textbook and lectures. Junior and Senior elective. *Both terms, two hours.* Professor BAIN.
5. Modern Greek: Rangabe's Handbook; Bikelas' Stories; Newspapers. Junior and Senior elective. *Spring term, two hours.* Professor BAIN.
6. Homer: rapid reading of the entire *Odyssey*. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.
7. Greek Drama: Euripides, *Iphigenia Among the Taurians*; Sophocles, *Œdipus Tyrannus*; Æschylus, *Agamemnon*; Aristophanes, *Wasps*; Aristotle, *Poetics*. Junior and Senior elective. *Both terms, three hours.* Professor BAIN.
9. Demosthenes, three *Philippics*. Junior and Senior elective. *Spring term, two hours.* Professor BAIN.
10. Thucydides, Book I. Junior and Senior elective. *Fall term, three hours.* Professor BAIN.
- 14A. The Greek New Testament: The Acts of the Apostles, study of grammar and diction, comparison with English versions. Junior and Senior elective; prerequisite, Greek 2. *Fall term, two hours.* Associate Professor BERNARD.
- 14B. The Greek New Testament: The Gospels; selections from the Epistles and Revelation; the principles of

textual criticism; sources of the Greek text with history of the text and versions. Junior and Senior elective; prerequisite, Greek 14A. *Spring term, two hours.* Associate Professor BERNARD.

15. Classical Archæology: History and Principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.

This course is the same as Latin 15.

16. Classical Archæology: Ancient Rome and Athens: a brief survey of the topography and monuments of the two cities. Lectures with prescribed reading. Junior and Senior elective; open also to Sophomores taking Greek 2 and Latin 2. *Fall term, two hours.* Associate Professor BERNARD.

This course is the same as Latin 16.

17. Greek Epigraphy and Palæography: a brief introduction to the study of Greek inscriptions and manuscripts. Lectures and reports. Senior elective. *Spring term, two hours.* Professor BAIN.

The attention of students electing this course is called to course 14 in the Latin Department.

19. Indo-European Philology; introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palæontology. Junior and Senior elective. *Both terms, two hours.* Associate Professor T. J. WILSON, JR.

The attention of students electing this course is called to courses 6 and 8 in the Department of English and to course 6 in the Department of Germanic Languages. The course is the same as Latin 13.

For courses 8, 11, 12, and 18, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1, 2, 3, and four hours of elective work.

DEPARTMENT OF HISTORY

KEMP PLUMMER BATTLE, A. M., LL. D., *Professor Emeritus of History.*

JOSEPH GREGOIRE DE ROULHAC HAMILTON, Ph. D., *Alumni Professor of History.*

HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of History.*

DANIEL HUGER BACOT, JR., A. M., *Instructor in History.*

1. American History: a general course covering the social, political, and economic development of the United States; text-books, lectures, and readings. Required of Freshmen in Groups 2 and 3. *Both terms, three hours.* Professors HAMILTON and WAGSTAFF, and Mr. BACOT.

2. Mediæval European History: a general course covering the period, 400-1648; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.* Professor WAGSTAFF.

This course alternates with course 4; to be omitted in 1913-1914.

3. English History: a general course; text-books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor WAGSTAFF.

4. Modern European History: a general course covering the period, 1648-1900; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.* Professor WAGSTAFF.

This course alternates with course 2; to be given in 1913-1914.

5. The English Constitution and Government: a careful study of English constitutional development and the present government of the English people. Lectures, text-books, and readings. Junior and Senior elective. *Both terms, two hours.* Professor HAMILTON.

6. North Carolina History: a general study of the constitutional, political, and economic development of the State in the period since the Revolution; lectures, readings, and reports. Junior and Senior elective. *Spring term, two hours.* Professor HAMILTON.

To be omitted in 1913-1914.

7. The American Government and Constitution: a detailed study of the political customs and institutions of the American people; followed in the spring term by a careful study of the Constitution of the United States by means of cases. Text-books, lectures, and readings. Junior and Senior elective. Open also to Sophomores who have obtained a grade of 90 on History 1. *Both terms, three hours.* Professor HAMILTON.
8. Classical History: a general course dealing largely with the Greeks and Romans; text-books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Mr. BACOT.
9. Spanish-American History 1492-1909: the course especially emphasizes the history of the leading Spanish-American countries from their revolutionary period to the present; lectures, text-books, and readings. Junior and Senior elective; open also to Sophomores. *Both terms, two hours.* Professor WAGSTAFF.
10. Civil War and Reconstruction: a detailed study of the constitutional, political, and economic phases of the period of Civil War and Reconstruction; lectures, readings, and reports. Senior elective. *Both terms, two hours.* Professor HAMILTON.
11. The Middle Period: a careful study of the leading movements in the United States from the adoption of the Constitution to 1850; lectures, readings, and reports. Junior and Senior elective. *Fall term, two hours.* Professor HAMILTON.
- 12A. The Protestant Revolt: a detailed study of the causes, progress, and results of the Protestant movement, with special attention to the lives, doctrines, and influence of Luther and Calvin; text-books, lectures, and readings. Junior and Senior elective. *Fall term, two hours.* Mr. BACOT.

To be omitted in 1913-1914.

- 12B. The French Revolution: a detailed study of the causes, progress and results of the Revolution; text-books,

lectures, and readings. Junior and Senior elective.
Spring term, two hours. Mr. BACOT.

To be omitted in 1913-1914.

15. Modern Municipal Government: a course dealing with urban development and problems in Europe and the United States during the nineteenth century; lectures, readings, and discussion. Junior and Senior elective.
Both terms, two hours. Mr. BACOT.

A certificate is granted to a student who has completed with credit fifteen hours in History.

For courses 13 and 14 see Graduate School.

DEPARTMENT OF LATIN

*GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*

WARREN STONE GORDIS, Ph. D., *Acting Professor of Latin.*

THOMAS JAMES WILSON, JR., Ph. D., *Associate Professor of Latin, and Acting Head of the Department.*

GEORGE KENNETH GRANT HENRY, A. M., *Instructor in Latin.*

WILBUR HIGH ROYSTER, A. M., *Instructor in Latin.*

1. Cicero, *De Senectute* and *De Amicitia*; Livy, Book I; Horace, *Odes* and *Epodes*; sight reading. Required of Freshmen in Group 1, elective in Group 2. *Both terms, four hours.* Professor GORDIS, Associate Professor WILSON, and Messrs. HENRY and ROYSTER.
2. Plautus, *Menæchmi*; Terence, *Phormio*; Horace, *Satires* and *Epistles*; Tacitus, *Agricola* and *Germania*. Sophomore elective in Groups 1 and 2. *Both terms, three hours.* Professor GORDIS, Associate Professor WILSON, and Messrs. HENRY and ROYSTER.
3. Latin Prose Composition: based on Cicero and Livy; intended as supplementary to Latin 1. Open to students who are taking Latin 1 or 2. *Both terms, one hour.* Mr. HENRY.

* Absent on leave 1912-1913.

4. Latin Comedy: reading of selected plays of Plautus and Terence, with a study of the historical development of ancient comedy. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.

This course alternates with course 5; to be given in 1913-1914.

5. Pliny, selected Letters; Juvenal Satires; Martial, selected Epigrams: reading with special reference to the private life of the Romans at the close of the first century A. D. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.

This course alternates with course 9; to be omitted in 1913-1914.

6. Cicero: rapid reading of the philosophical works, De Officiis and Tusculan Disputations, and of the rhetorical works, Brutus and De Oratore. Junior and Senior elective. *Both terms, two hours.* Professor GORDIS.

This course alternates with course 4; to be omitted in 1913-1914.

7. Roman Political Institutions: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Fall term, two hours.* Professor HOWE.

This course alternates with course 7A; to be given in 1913-1914.

- 7A. The Private Life of the Romans: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Fall term, two hours.* Professor GORDIS.

This course alternates with course 7; to be omitted in 1913-1914.

8. History of Roman Literature: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Spring term, two hours.* Professor GORDIS.

9. Roman Elegiac Poets: rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives of the elegists; the history of Greek and Roman elegy. Junior and Senior elective. *Both terms, two hours.* Professor HOWE.

This course alternates with course 5; to be given in 1913-1914.

10. A Course for Teachers: embracing pronunciation, prosody, the art of reading Latin, and a classification of

moods and tenses. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.

13. Indo-European Philology: introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palæontology. Lectures. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.

The attention of students electing this course is called to courses 6 and 8 in the Department of English and to course 6 in the Department of Germanic Languages. The course is the same as Greek 19.

14. Latin Epigraphy and Palæography: a brief introduction to the study of Latin inscriptions and manuscripts. Lectures and reports. Senior elective. *Fall term, two hours.* Professor GORDIS.

The attention of students electing this course is called to course 17 in the Department of Greek.

15. Classical Archæology: History and Principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.

This course is the same as Greek 15.

16. Classical Archæology: Ancient Rome and Athens: a brief survey of the topography and monuments of the two cities; lectures with prescribed reading. Junior and Senior elective; open also to Sophomores taking Greek 2 and Latin 2. *Fall term, two hours.* Associate Professor BERNARD.

This course is the same as Greek 16.

For courses 11 and 12, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1, 2, and 3, and six hours of elective work.

DEPARTMENT OF MATHEMATICS

WILLIAM CAIN, A. M., *Professor of Mathematics.*

ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

THOMAS FELIX HICKERSON, A. M., *Associate Professor of Civil Engineering.*

THEOPHILUS RANDOLPH EAGLES, JR., A. M., *Instructor in Mathematics.*

JOHN WAYNE LASLEY, JR., A. M., *Instructor in Mathematics.*

ALEXANDER MORSE ATKINSON, *Instructor in Drawing.*

WILLIAM WALKER RANKIN, JR., A. M., *Fellow in Mathematics.*

JASPER LOUIS PHILLIPS, *Assistant in Surveying.*

1. Algebra: from Quadratics through Theory of Equations (Fine's *College Algebra*); Plane and Spherical Trigonometry and Logarithms. Required of Freshmen. *Both terms, four hours.* Professor HENDERSON, Associate Professor HICKERSON, and Messrs. EAGLES and LASLEY.
2. Brief Course in Conic Sections: (Smith and Gale's *Analytic Geometry*); Elementary Course in Differential and Integral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomores in Group 3, elective in Groups 1 and 2. *Both terms, three hours.* Professors CAIN and HENDERSON.
3. Surveying (Raymond) and Higher Surveying, Drawing. Junior and Senior elective; prerequisite, Mathematics 1. *Both terms, three hours.* Professor STACY, Associate Professor HICKERSON, and Mr. PHILLIPS.
- 3A. Elementary Mechanics (Loney). Junior and Senior elective; prerequisite, Mathematics 1. *Both terms, two hours.* Professor STACY.
- 3B. Graphics: Descriptive Geometry (Church); Shades, Shadows, and Perspective (Mitchell); lectures and

- plates. Junior and Senior elective. *Both terms, two hours.* Mr. ATKINSON.
- 3C. Stereotomy: a course in the application of Descriptive Geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers, and culverts. A study of warped surfaces and drawings for the helicoidal arch. Senior elective; prerequisite, Mathematics 3B. *Spring term, two hours.* Mr. ATKINSON.
- 3D. Theory of Equations. Sophomore, Junior, and Senior elective; prerequisite, Mathematics 1. *Fall term, two hours.* Professor HENDERSON.
- 3E. Differential Equations: elementary course. Junior and Senior elective; prerequisite, fall term of Mathematics 4. *Spring term, two hours.* Professor HENDERSON.
4. Calculus, Analytic Mechanics. Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.
5. Theory of Equations (Burnside and Panton). Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, three hours.* Professor HENDERSON.
6. Differential Equations (Murray). Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.* Professor HENDERSON.
7. Road and Railroad Surveying and Engineering. Senior elective; prerequisite, Mathematics 3. *Both terms, two hours.* Professor STACY.
- 7A. Hydraulics and Sanitary Engineering. Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.* Professor STACY.
8. Mechanics of Materials. Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.* Professor CAIN.

10. Theory of Structures. Senior elective; prerequisite, Mathematics 4. *Both terms, four hours.* Associate Professor HICKERSON.
11. Retaining Walls and Dams, Arches. Senior elective; prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.
13. Design of Structures. Senior elective; may be taken in connection with Mathematics 8 and 10. *Spring term, four hours.* Associate Professor HICKERSON.
14. Brief Course in Strength of Materials and Stresses and Trusses. Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, two hours.* Professor STACY.
16. Road Construction and Drainage, Road Location. Prerequisite Mathematics 3. Senior elective. *Both terms, two hours.* Associate Professor HICKERSON.

For additional courses, see Graduate School.

Drawing

1. Freehand and Mechanical Drawing: (a) Freehand drawing; sketching from dictation, sketching of geometrical figures, sketching from flat copy and from models; application of rules of perspective and light and shade. (b) Lettering: Freehand and mechanical lettering. (c) Mechanical drafting; the use of instruments; geometrical drafting; orthographic projection; elementary working drawings. Text-books: Anthony's *Mechanical Drawing*; Reinhardt's *Freehand Lettering*. Not counted for the degree. *Both terms, two hours.* Mr. ATKINSON.
2. Mechanical and Topographical Drawing: (a) Mechanism and valve-gears, including the design of cams, gears, slide valves, etc.; dimensions and working drawings of machines from measurements. (b) Topography: topographical symbols, map drawing in pen and ink and colors. Text-books: Spooner's *Machine Drawing and Design* and Daniel's *Topographical*

Drawing. Not counted for the degree. *Both terms, two hours.* MR. ATKINSON.

- 2A. Mechanical Drawing: working drawings; tracings; blue-prints; structural work; teaching systems of dimensioning; conventional representations; topographical drawing; conventional signs and plotting. Text-books: Anthony's *Machine Drawing*; Daniels' *Topographical Drawing*. Not counted for the degree. *Both terms, two hours.* MR. ATKINSON.
3. Mechanical Drawing: machine drafting, work drawings; tracing and blue prints of machine details; assembly drawing; machine design; complete shop and erection drawing with bill of material, in accordance with modern drafting-room systems and standards. Not counted for the degree; prerequisite, Drawing 1 and 2. *Both terms, two hours.* MR. ATKINSON.
5. Advanced Freehand Drawing: charcoal and crayon, pen and ink, brush drawing: lectures. Not counted for the degree. *Both terms, two hours.* MR. ATKINSON.
6. Theory of Perspective: lectures and plates. Not counted for the degree. *Both terms, two hours.* MR. ATKINSON.
7. Structural Drafting: standard rolled sections, conventional riveting signs, standard connections, methods of framing and detailing structural work, beams, columns, plate girders, roof trusses, bridge details. Not counted for the degree. *Both terms, two hours.* MR. ATKINSON.

DEPARTMENT OF PHILOSOPHY

HENRY HORACE WILLIAMS, A. M., B. D., *Professor of Philosophy.*

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

1. Psychology: lectures, with text-books. Junior and Senior elective. *Both terms, three hours.* Professor CHASE.

2. Logic: lectures, with text-books; the study of logic in life. Junior and Senior elective. *Both terms, two hours.* Professor WILLIAMS.
3. Ethics: criticism and discussions. Junior and Senior elective. *Both terms, two hours.* Professor WILLIAMS.
4. Philosophy: lectures; theses; a study of the forces that shape life. Junior and Senior elective. *Both terms, three hours.* Professor WILLIAMS.
6. A Companion Course to Philosophy 4. The aim of the course is to sketch the forces masterful in modern life. Junior and Senior elective. *Both terms, three hours.* Professor WILLIAMS.

For course 5, see Graduate School.

DEPARTMENT OF PHYSICS

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

JAMES BLAINE SCARBOROUGH, *Assistant in Physics.*

JOHN MADISON LABBERTON, *Assistant in Electrical Engineering.*

[For description of Physical Laboratories, see page 184].

- A. Elementary Physics: lectures, with text-book, weekly written reviews, laboratory work. May be counted for entrance; open also to students in the Schools of Medicine and Pharmacy. *Both terms, three hours.* Messrs. CHRISLER and SCARBOROUGH.

Laboratory fee, \$1.00 a term.

1. General Physics: lectures, with text-books; problems; laboratory work. Required of Sophomores in Group 3; elective in Groups 1 and 2; prerequisite, Mathematics 1. *Both terms, three hours.* Professor PATTERSON and Mr. CHRISLER.

Laboratory fee, \$1.50 a term.

2. Modern Electrical Theory: the electron theory, electrolysis, conduction of electricity through gases, electrical

nature of matter, radioactivity; lectures and recitations. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.

4. Study of Electricity and Magnetism: with laboratory work; Franklin and MacNutt's *Electricity and Magnetism*. Junior and Senior elective. *Both terms, two hours.* Professor PATTERSON.

Laboratory fee, \$2.00 a term.

5. Descriptive Astronomy: a general course; lectures and recitations with use of lantern slides. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.
6. Advanced Heat and Thermodynamics. Edser's *Heat for Advanced Students*. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.
10. The Elements of Electrical Engineering: an introductory course in the theory and practical operation of direct and alternating current machines and apparatus. Franklin and Esty's *Elements of Electrical Engineering*, Vols. I and II. Laboratory work one afternoon a week. Junior and Senior elective; prerequisite, a grade of 80 in Physics 1. (Spring term). *Both terms, three hours.* Associate Professor DAGGETT and Mr. LABBERTON.

Laboratory fee, \$3.00 a term.

11. Alternating Currents and Alternating Current Machinery: lectures and problem work; testing and study of alternating current machines in the laboratory. Reference-book: Steinmetz's *Alternating Current Phenomena*. Senior elective; prerequisite, Physics 10 and Mathematics 4. *Both terms, four hours.* Associate Professor DAGGETT.

Laboratory fee, \$3.00 a term.

- 12A. Illuminating Engineering: theoretical and practical study of modern light sources. Wickenden's *Illumination and Photometry*. Senior elective; prerequisite, Phys-

ics 10. *Fall term, two hours.* Associate Professor DAGGETT.

12B. Electric Power Transmission: a study of the theory, construction, and operation of low and high tension circuits for the transmission of power. Lectures and problem work. Senior elective; prerequisite, Physics 11 (Fall term). *Spring term, two hours.* Associate Professor DAGGETT.

13B. Electric Design: fundamental principles of the design of electrical machinery; lectures, calculations, preparation of drawings and specifications. Reference-books: Hawkins and Wallis' *The Dynamo*, Hobart's *Dynamo Design*, Hobart and Ellis' *High Speed Dynamo Electric Machinery*. Senior elective; prerequisites, Physics 11 and 14. *Spring term, two hours.* Associate Professor DAGGETT.

14. Electrical Engineering Laboratory: calibration of instruments, testing of electric lamps and storage batteries; dielectric tests; dynamo and motor characteristics; regulation; efficiency; heating. Karapetoff's *Experimental Electrical Engineering*, Vols. I and II. Senior elective; prerequisite, Physics 10. *Both terms, three hours.* Associate Professor DAGGETT.

Laboratory fee, \$5.00 a term.

15. Steam Engineering: boilers, furnaces, steam pumps, and other boiler room accessories; steam engines, valves, and valve-gears; steam turbines; gas and oil engines, gas producers. Lectures, problems, and laboratory work in the University Power Station; Allen and Bursley's *Heat Engines*. Junior elective; prerequisites, Drawing 1 and Physics 1. *Both terms, two hours.* Associate Professor DAGGETT and Mr. LABBERTON.

Laboratory fee, \$2.50 a term.

For courses for graduate students, see Graduate School.

DEPARTMENT OF ROMANCE LANGUAGES

WILLIAM MORTON DEY, Ph. D., *Professor of the Romance Languages and Literatures.*

OLIVER TOWLES, Ph. D., *Associate Professor of the Romance Languages.*

EUGENE FRED PARKER, A. M., *Instructor in the Romance Languages.*

French

- A. Elementary Course: grammar; pronunciation taught by the phonetic method; oral and written exercises; translation and reading at sight. This course may be counted for entrance only. *Both terms, three hours.* Professor DEY, Associate Professor TOWLES, and Mr. PARKER.
1. Continuation of Course A: grammar; composition; reading of modern French literature. Required of Freshmen in Group 3; elective in Group 2; Sophomore elective. *Both terms, three hours.* Associate Professor TOWLES and Mr. PARKER.
 2. Advanced Course: studies in reading and writing French, and in pronunciation; French phonetics. Sophomore elective in Group 2; Junior and Senior elective; prerequisite, French 1. *Both terms, three hours.* Professor DEY.
 3. French Literature: a general outline of its various periods. Lectures, reading, reports. Junior and Senior elective; prerequisite, French 2. *Both terms, three hours.* Associate Professor TOWLES.
 - 4A. French Literature in the Seventeenth Century: Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.* Associate Professor TOWLES.

This course alternates with course 4B; to be omitted in 1913-1914.

- 4B. French Literature in the Eighteenth Century: Lectures, reading, reports. Junior and Senior elective; prerequi-

site, French 3. *Both terms, three hours.* Professor DEY.

This course alternates with course 4A; to be given in 1913-1914.

5. French Literature in the Nineteenth Century: Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.* Professor DEY.

A certificate is granted to a student who has completed with credit any four courses exclusive of course A.

For courses for graduate students, see Graduate School.

Spanish

1. Elementary Course; grammar; pronunciation; oral and written exercises; translation and reading at sight. Junior and Senior elective. *Both terms, three hours.* Professor DEY.
2. Second Year Course: wide reading of representative writers of the eighteenth and nineteenth centuries; grammar; composition based on selected texts. Junior and Senior elective; prerequisite, Spanish 1. *Both terms, three hours.* Professor DEY.
3. Spanish Literature in the Sixteenth and Seventeenth Centuries: Cervantes, Lope de Vega, Calderon. Junior and Senior elective; prerequisite, Spanish 2. *Both terms, two hours.* Professor DEY.

Italian

1. Elementary Course: grammar, pronunciation; oral and written exercises; translation and reading at sight. Junior and Senior elective. Prerequisite, French 1. *Both terms, three hours.* Associate Professor TOWLES.

DEPARTMENT OF ZOOLOGY

HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*

WESLEY CRITZ GEORGE, A. M., *Instructor in Zoology.*

ALLYN RAYMOND BROWNSON, *Assistant in Zoology.*

[For description of Biological Laboratories, see page 187].

1. Elements of Zoology: an introductory course giving an outline of the classification and structure of animals,

fundamentals of histology, embryology, and physiology with some consideration of biological theories. Lectures with laboratory work. Sophomore, Junior, and Senior elective, and open to First Year Medical students. *Both terms, three hours.* Professor WILSON and Mr. GEORGE.

2. Comparative Anatomy and Embryology of the Vertebrates: dissection of types, especially amphioxus, petromyzon, fish, fowl, mammal; early stages in embryology of ascaris, starfish; segmentation and formation of germ layers in teleost and frog; germ layers and development of characteristic vertebrate organs in chick; selected stages in development of mammal (rabbit, pig); fundamentals of microscopic technique; laboratory work with occasional lectures. Junior and Senior elective. *Both terms, three hours.* Professor WILSON and Mr. BROWNSON.
3. General Zoology: an advanced course for such as expect to teach or to carry on investigations in zoological, or allied medical, subjects. Laboratory work to cover anatomy, with some histology and embryology, of chief orders of animals, especially invertebrates: collecting trips: identification of forms: essentials of gross and microscopic photography; microscopic technique supplementary to that of the usual courses in embryology and histology. Conferences and lectures dealing with morphology of groups, history of zoology, and the theories of biology as deduced from facts of comparative and experimental study. Junior and Senior elective. *Both terms, five hours.* Professor WILSON.

A certificate is granted to a student who has completed with credit courses 1, 2, and 3, and Botany 1.

SCHOOL OF APPLIED SCIENCE

FACULTY

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., PRESIDENT.

ANDREW HENRY PATTERSON, A. M., DEAN.

WILLIAM CAIN, A. M., *Professor of Mathematics.*

COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*

JOSEPH HYDE PRATT, Ph. D., *Professor of Economic Geology.*

CHARLES HOLMES HERTY, Ph. D., *Professor of General and Industrial Chemistry.*

ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

ALVIN SAWYER WHEELER, Ph. D., *Professor of Organic Chemistry.*

THOMAS FELIX HICKERSON, A. M., S. B., *Associate Professor of Civil Engineering.*

PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*

JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

THEOPHILUS RANDOLPH EAGLES, JR., A. M., *Instructor in Mathematics.*

JOHN ELIPHALET SMITH, B. S., *Instructor in Geology.*

JOHN WAYNE LASLEY, JR., A. M., *Instructor in Mathematics.*

ALEXANDER MORSE ATKINSON, *Instructor in Drawing.*

CHARLES SCOTT VENABLE, A. M., *Instructor in Chemistry.*

JAMES TALMAGE DOBBINS, A. M., *LeDoux Fellow in Chemistry.*

WILLIAM LEWIS JEFFRIES, A. M., *Toch Fellow in Chemistry.*

BURKE HAYWOOD KNIGHT, A. B., *Fellow in Technical Chemistry.*

LUCIUS EUGENE STACY, JR., A. B., *Fellow in Organic Chemistry.*

PAUL ROBY BRYAN, *Assistant in Chemistry.*

CARNIE BLAKE CARTER, *Assistant in Chemistry.*

FRANK DAVIES CONROY, *Assistant in Chemistry.*

CLARENCE BALLEW HOKE, *Assistant in Chemistry.*

JACKSON TOWNSEND, *Assistant in Chemistry.*

JOHN MADISON LABBERTON, *Assistant in Electrical Engineering.*

ROBERT CAMPBELL JURNEY, *Assistant in Geology.*

JAMES BLAINE SCARBOROUGH, *Assistant in Physics.*

JASPER LOUIS PHILLIPS, *Assistant in Surveying.*

COURSES LEADING TO THE DEGREE OF BACHELOR OF SCIENCE

In order to be recommended for the degree of Bachelor of Science, the student must have passed satisfactory examinations in all the studies required in one of the following courses outlined in this department, I, II, III, IV, and V. Each course combines instruction in certain sciences and their application to the arts with certain other general studies deemed essential to a liberal education. These courses are designed to furnish the fundamental instruction and to prepare students to pursue the technical professions to which they lead. The courses leading to the degree are five in number; course IIIA is a special course.

- I. Bachelor of Science in Chemical Engineering.
- II. Bachelor of Science in Electrical Engineering.
- III. Bachelor of Science in Civil Engineering.
- IIIA. Road Engineering.
- IV. Bachelor of Science in Medicine.
- V. Bachelor of Science in Soil Investigation.

ADMISSION

Candidates for admission to the School of Applied Science must present 14 units for unconditional entrance. A complete list of these units and the requirements in each subject will be found on pp. 32-38 of the general catalogue.

The specific requirements are as follows:

English <i>a, b, c</i> ,	3. units
History <i>a</i> or <i>b</i> ,	2. units
Mathematics <i>a, b, c</i> ,	3. units
French <i>a</i> or German <i>a</i> ,	2. units
Science	1. unit
Elective,	3. units

At least twelve units must be offered at entrance.

I. BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING**FRESHMAN YEAR**

English 1, Composition	*(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
German 1, Translation and Composition.....	(3)
Chemistry 1, General Chemistry	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR

English 2A, Composition and Literature.....	(3)
Mathematics 2, Analytics and Calculus.....	(3)
Chemistry 3, Qualitative Analysis.....	(2)
Chemistry 4, Quantitative Analysis.....	(3)
Physics 1, General Course.....	(3)
Drawing 2A, Mechanical and Topographical.....	(2)

JUNIOR YEAR

Chemistry 16, Inorganic Chemistry, advanced.....	(1½)
Chemistry 2, Technical Chemistry.....	(3)
Chemistry 17, Quantitative Analysis, advanced.....	(3)
Chemistry 5, Organic Chemistry, advanced.....	(3)
Chemistry 7, Elementary Physical Chemistry.....	(3)
Geology 1, General Course.....	(3)
Physics 15, Steam Machinery (fall term).....	(1)

* Numerals in parentheses indicate the number of hours a week.

SENIOR YEAR

Chemistry 6, Theories of Chemistry.....	(1)
Chemistry 5A, Organic Chemistry.....	(2)
Select { Chemistry 7A, Physical Chemistry, advanced..	(2)
one { Chemistry 7B, Electro-Chemistry.....	(2)
Chemistry 18, Research.....	(5)
Physics 10, Electric Machinery.....	(3)
Physics 6, Thermodynamics (fall term).....	(1)
Geology 2, Mineralogy	(3)

II. BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

FRESHMAN YEAR

English 1, Composition.....	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
Select { German 1, Composition and Translation.....	(3)
one { French 1, Composition and Translation.....	(3)
Chemistry 1, General Course.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR

English 2A, Composition and Literature.....	(3)
Mathematics 2, Analytics and Calculus.....	(3)
Select { German 2B, Translation and Literature.....	(3)
one { French 2, Composition and Translation.....	(3)
Spanish 1, Grammar and Translation.....	(3)
Physics 1, General Course.....	(3)
Physics 4, Electricity and Magnetism.....	(2)
Chemistry 3A, Qualitative Analysis.....	(1½)
Chemistry 4A, Quantitative Analysis.....	(1)

JUNIOR YEAR

Mathematics 3, Surveying.....	(2)
Mathematics 3B, Descriptive Geometry.....	(2)
Mathematics 4, Calculus and Mechanics.....	(3)
Physics 6, Thermodynamics	(2)
Physics 10, Electric Machinery.....	(3)
Physics 15, Steam Machinery.....	(2)
Drawing 3, Mechanical, and Machine Design.....	(2)

SENIOR YEAR

Physics 11, Alternating Currents, (Advanced).....	(4)
Physics 12A, Illuminating Engineering.....	(1)
Physics 12B, Electric Power Transmission.....	(1)
Physics 13B, Electrical Design.....	(1)
Physics 14, Electrical Engineering, Laboratory.....	(3)
Chemistry 7B, Electro-Chemistry.....	(2)
Mathematics 7A, Hydraulics.....	(3)

III. BACHELOR OF SCIENCE IN CIVIL ENGINEERING

FRESHMAN YEAR

English 1, Composition.....	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
Select { French 1, Composition and Translation.....	(3)
one { German 1, Composition and Translation.....	(3)
Chemistry 1, General Course.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR

English 2A, Composition and Literature.....	(3)
Mathematics 2, Analytics and Calculus.....	(3)
Mathematics 3, Surveying.....	(2)
Mathematics 3A, Elementary Mechanics.....	(2)
Physics 1, General Course.....	(3)
Geology 1, General Course.....	(3)
Drawing 2A, Mechanical and Topographical.....	(2)

JUNIOR YEAR

Mathematics 3B, Descriptive Geometry.....	(2)
Mathematics 4, Calculus and Analytical Mechanics....	(3)
Mathematics 7, Road and Railroad Surveying and Engi- neering	(3)
Mathematics 16, Road Construction, Drainage, and Lo- cation	(2)
Geology 8A, Soil Surveying and Rocks for Road Con- struction	(1)
Drawing 2, Mechanical and Topographical.....	(2)
Physics 10, Electrical Machinery.....	(3)

SENIOR YEAR

Mathematics 7A, Hydraulics and Sanitary Engineering.	(3)
Mathematics 11, Retaining Walls and Dams; Arches....	(2)
Mathematics 8, Mechanics of Materials.....	(3)
Mathematics 10, Theory of Structures.....	(4)
Mathematics 13, Design of Structures.....	(3)

III. ROAD ENGINEERING

FRESHMAN YEAR

English 1, Composition.....	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
Select { German 1, Translation and Composition.....	(3)
one { French 1, Translation and Composition.....	(3)
Chemistry 1, General Course.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR

English 2A, Composition and Literature.....	(3)
Mathematics 2, Analytics and Calculus.....	(3)
Mathematics 3, Surveying.....	(2)
Mathematics 3A, Mechanics.....	(2)
Physics 1, General Course.....	(3)
Drawing 2A, Mechanical and Topographical.....	(2)
Geology 1, General Course.....	(3)

JUNIOR YEAR

Mathematics 4, Calculus and Analytical Mechanics.....	(3)
Mathematics 7, Road and Railroad Surveying and Engineering	(3)
Mathematics 14, Brief Course in Strength of Materials and Stresses in Trusses.....	(2)
Mathematics 16, Road Construction, Drainage, and Location	(2)
Road Management, Building Model Roads.....	(1)
Geology 8A, Soil Surveying and Rocks for Road Construction	(1)
Drawing 2, Mechanical and Topographical.....	(2)

IV. BACHELOR OF SCIENCE IN MEDICINE

FRESHMAN YEAR

English 1, Composition.....	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
Chemistry 1, General Course.....	(3)
Botany 1, General Course.....	(3)
Select one { German 1, Composition and Translation.....	(3)
{ French 1, Composition and Translation.....	(3)
{ Latin 1, Grammar and Translation.....	(4)

SOPHOMORE YEAR

English 2, Composition and Literature.....	(3)
Physics 1, General Course.....	(3)
Zoology 1, General Course.....	(3)
Chemistry 3A, Qualitative Analysis.....	(1½)
Chemistry 4A, Quantitative Analysis.....	(1)
Select one { German 1 or 2.....	(3)
{ French 1 or 2.....	(3)
{ Latin 1	(4)
{ Latin 2	(3)
Select one { Drawing 1, Freehand and Mechanical.....	(2)
{ History 1, American.....	(3)

JUNIOR YEAR*

Organic Chemistry, fall term.....	(6)
Toxicology, spring term.....	(6)
Comparative Anatomy, fall term.....	(6)
Human Anatomy	(10)
Histology, fall term.....	(9)
Embryology, spring term.....	(6)
Pharmacy, spring term.....	(6)

SENIOR YEAR

Human Anatomy, fall term.....	(9)
Neuro-Anatomy, fall term.....	(6)
Bacteriology, fall term.....	(9)
Physiology	(7½)
Physiological Chemistry, fall term.....	(6)

* The Junior and Senior courses are given in the School of Medicine, where descriptions of courses may be found.

Pathology, spring term.....	(9)
Pharmacology, spring term.....	(10)
Minor Surgery, spring term.....	(4)

V. BACHELOR OF SCIENCE IN SOIL INVESTIGATION

FRESHMAN YEAR

English 1, Composition.....	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
German 1, Translation and Composition.....	(3)
Chemistry 1, General Course.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR

English 2A, Composition and Literature.....	(3)
Mathematics 3, Surveying	(2)
Chemistry 3, Qualitative Analysis.....	(2)
Geology 1, General Course.....	(3)
Physics 1, General Course.....	(3)
Drawing 2, Mechanical and Topographical.....	(2)

JUNIOR YEAR

Chemistry 4, Quantitative Analysis.....	(3)
Geology 2, Mineralogy.....	(3)
Botany 1, General Course.....	(3)
Chemistry 2, Technical.....	(3)
French 1, Composition and Translation.....	(3)

SENIOR YEAR

Geology 6, Research	(3)
Geology 7, Advanced Physiography.....	(3)
Geology 8, Origin and Nature of Soils.....	(2)
Chemistry 8, Advanced Quantitative Analysis and Research	(5)
Soils of the United States.....	(1½)
Mapping	(2)

COURSES OF INSTRUCTION

Only those scientific and language courses which are specifically required in the School of Applied Science are repeated here. For complete description of other courses, see page 43.

DEPARTMENT OF CHEMISTRY

[For description of Chemical Laboratories, see page 185.]

1. General Descriptive Chemistry: a study of the elements and their compounds, including an introduction to Organic Chemistry; lectures with laboratory work. Required of Freshmen. *Both terms, three hours.* Professor HERTY and Messrs. VENABLE and CARTER.

Laboratory fee, \$1.25 a term.

2. Technical Chemistry: (a) Industrial and Agricultural Chemistry: glass-making, acids, alkalies, phosphates, fertilizers, foods, clothing, hygiene, etc. (b) Metallurgy: mining, treatment of ores, smelting, chlorination, fuel, building materials, etc. Required of Juniors in Courses I and V; prerequisite, Chemistry 1. *Both terms, three hours.* Professor HERTY.

3. Qualitative Analysis: laboratory work with lectures. Required of Sophomores in Courses I, and V. *Both terms, two hours.* Professor WHEELER and Mr. HOKE.

Laboratory fee, \$5.00 a term.

- 3A. Qualitative Analysis. The behavior of the elements and their compounds is studied in the laboratory. Practice is given in the analysis of known and unknown mixtures. Laboratory work with lectures. Required of Sophomores in courses II and IV. *Fall term, three hours.* Professor WHEELER and Mr. HOKE.

Laboratory fee, \$7.50.

4. Quantitative Analysis: laboratory work, lectures, and stoichiometric exercises; a grounding in analytical

methods. Required of Sophomores in Course I, and of Juniors in Course V; prerequisite, Chemistry 1. *Both terms, three hours.* Associate Professor BELL.

Laboratory fee, \$5.00 a term.

- 4A. Quantitative Analysis: a brief course in gravimetric methods, followed by a more extended course in volumetric methods. Required of Sophomores in courses II and IV. *Spring term, two hours.* Associate Professor BELL.

Laboratory fee, \$4.00.

5. Organic Chemistry. Required of Juniors in Course 1; prerequisite, Chemistry 1 and 3. *Both terms, three hours.* Professor WHEELER.

Laboratory fee, \$4.00 a term.

- 5A. Organic Chemistry: laboratory work only. This course is designed to give further practice in dealing with organic substances. Required of Seniors in Course 1. *Both terms, two hours.* Professor WHEELER.

Laboratory fee, \$6.00 a term.

6. The History of Chemistry. Required of Seniors in Course I; prerequisite, Chemistry 1, 3, 4, 5. *Spring term, two hours.* President VENABLE.

7. Elementary Physical Chemistry. Required of Juniors in Course I; prerequisite, Chemistry 1, 3 and 4. *Both terms, three hours.* Associate Professor BELL.

Laboratory fee, \$2.00 a term.

- 7A. Physical Chemistry: lectures and text-books, with laboratory work. Senior elective in Course I; prerequisite, Chemistry 7. *Both terms, two hours.* Associate Professor BELL.

Laboratory fee, \$2.00 a term.

- 7B. Electro-Chemistry: theory and application of electricity to chemical processes. Senior elective in Course I, required of Seniors in Course II; prerequisite, Chemistry 1, 3, (or 3A) and 4 (or 4A). *Both terms, two hours.* Associate Professor BELL.

Laboratory fee, \$2.00 a term.

16. Inorganic Chemistry: a detailed study of the reactions of the elements and their compounds; lectures and text-book. Required of Juniors in Course I; prerequisite, Chemistry 1, 3, and 4. *Spring term, three hours.* Professor HERTY.
17. Quantitative Analysis: laboratory work; extension of course 4 along technical lines. Required of Juniors in Course I; prerequisite, Chemistry 1, 3, and 4. *Both terms, three hours.* Professor HERTY.
18. Research. Required of Seniors in Course I; prerequisite, Chemistry 1, 3, 4, 5, 7, and 17. *Both terms, five hours.* Professors HERTY and WHEELER and Associate Professor BELL.

Laboratory fee, \$5.00 a term.

The Journal Club meets fortnightly. The current journals, American, English, German, and French, both the purely scientific and the technical, are reviewed by the students and instructors. Attendance is expected of students in advanced courses.

DEPARTMENT OF ENGLISH

1. Types of Literature: the short story, the novel, the essay; the lyric, the epic, the ballad, and the drama. Practical rhetoric and theme writing during the second term. This course lays the foundation for the student's later studies in both literature and composition. Required of Freshmen. *Both terms, three hours.* Professors ROYSTER and CROSS, Associate Professor BOOKER, and Mr. SNEATH.
- 2A. Technical Composition for Engineers. First term: a study of the forms of scientific writing—description, exposition, directions—with the aim of developing clearness, accuracy, and logical thinking. Preparation and criticism of daily and weekly themes, and reading of illustrative literature from engineering magazines. Text-book: S. C. Earle's *Theory and Practice of Technical Writing*. Second term: History of English Literature. Required of Sophomores in Courses

I, II, III, IIIA, and V. *Both terms, three hours.* Mr. SNEATH.

DEPARTMENT OF GEOLOGY AND MINERALOGY

[For description of Geological Laboratories, see page 188.]

1. Elementary Geology: lectures with field work; laboratory work on the common minerals and rocks. Required of Sophomores in Courses II, III, and V, and of Juniors in Course I. *Both terms, three hours.* Professor COBB, and Mr. JURNEY.

Laboratory fee, \$3.00 for the spring term.

2. Mineralogy: lectures with laboratory and field work; Lewis's *Tables* and Dana's *Manual of Mineralogy*. Required of Juniors in Course V, and of Seniors in Course I. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, \$5.00 a term.

4. Economic Geology: ore deposits and economic minerals; lectures with laboratory and field work. Prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, \$1.00 a term.

6. Advanced Field Work and special research in Geology or Geography: problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Course V; prerequisite, two courses in Geology. *Both terms, three hours.* Professor COBB.

8. Origin and Nature of Soils: field work, laboratory and theses. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Course V. *Both terms, two hours.* Professor COBB.

Laboratory fee, \$3.00 a term.

- 8A. Soils and Stones for Road Making: field work, laboratory work. Required of Juniors in Courses III and IIIA; prerequisite, Geology 1. *Both terms, one hour.* Mr. SMITH.

Laboratory fee, \$1.00 a term.

10. Soils of the United States: an introductory study of the chief soil provinces, soil series, and soil areas of the United States, with special reference to the soils of North Carolina. Required of Seniors in Course V. *Spring term, two hours.* Professor COBB and Dr. COFFEY.
- 10A. Soil Mapping: preparation of large scale soil maps of the Chapel Hill region. Required of Seniors in Course V. *Both terms, two hours..* Professor COBB and Dr. COFFEY.
11. Mineral and Ore Deposits: lectures supplemented by laboratory and field work. *Twenty-four lectures (spring term).* Professor PRATT.
12. Advanced Work in Mineralogy. *One hour.* Professor PRATT.

The Geological Seminary meets fortnightly for review and discussion of current geological literature, and for the presentation of original papers.

DEPARTMENT OF GERMANIC LANGUAGES

- A. Elementary Course: grammar; written and oral exercises; translation; sight reading. This course may be counted for entrance only. *Both terms, three hours.* Professor TOY, Associate Professor BROWN, and Mr. HENDERSON.
1. Translation, Sight Reading, Composition, Grammar: required of Freshmen in Courses I and V; elective in Courses II, III, IIIA, IV. *Both terms, three hours.* Professor TOY and Associate Professor BROWN.
- 2B. History of German Literature in the Nineteenth Century after 1832: rapid reading from representative authors, with parallel lectures. Sophomore elective in Course II; prerequisite, German I. *Both terms, three hours.* Associate Professor BROWN.

DEPARTMENT OF MATHEMATICS

1. Algebra, from Quadratics through Theory of Equations (Fine's *College Algebra*); Plane and Spherical Trigonometry and Logarithms. Required of Freshmen. *Both terms, four hours.* Professor HENDERSON, Associate Professor HICKERSON, and Messrs. EAGLES and LASLEY.
2. Brief Course in Conic Sections: (Smith and Gale's *Analytic Geometry*); Elementary Course in Differential and Integral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomores. *Both terms, three hours.* Professors CAIN and HENDERSON.
3. (a) Surveying (Raymond), and (b) Higher Surveying. Required of Sophomores in Courses III, IIIA, and V, and of Juniors in Course II. *Both terms, two hours.* Professor STACY, Associate Professor HICKERSON, and Mr. PHILLIPS.
- 3A. Elementary Mechanics (Loney). Required of Sophomores in Courses III and IIIA. *Both terms, two hours.* Professor STACY.
- 3B. Graphics: Descriptive Geometry (Church); Shades, Shadows, and Perspective (Mitchell). Required of Juniors in Courses II and III. *Both terms, two hours.* Mr. ATKINSON.
4. Calculus, Analytic Mechanics. Required of Juniors in Courses II, III, IIIA; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.
7. Railroad Surveying and Railroad Engineering. Required of Juniors in Courses III and IIIA; prerequisite, Mathematics 3. *Both terms, three hours.* Professor STACY.
- 7A. Hydraulics and Sanitary Engineering. Required of Seniors in Courses II and III; prerequisite, Mathematics 4. *Both terms, three hours.* Professor STACY.

8. **Mechanics of Materials.** Required of Seniors in Course III; prerequisite, Mathematics 4. *Both terms, three hours.* Professor CAIN.
10. **Theory of Structures.** Required of Seniors in Course III; prerequisite, Mathematics 4. *Both terms, four hours.* Associate Professor HICKERSON.
11. **Retaining Walls and Dams; Arches.** Required of Seniors in Course III; prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.
13. **Design of Structures.** Required of Seniors in Course III; may be taken in connection with Mathematics 8 and 10. *Both terms, three hours.* Associate Professor HICKERSON.
14. **Brief Course in Strength of Materials and Stresses in Trusses.** Required of Juniors in Course IIIA; prerequisite, Mathematics 4. *Both terms, two hours.* Professor STACY.
16. **Road Construction and Drainage; Road Location.** Required of Juniors in Courses III and IIIA. *Both terms, two hours.* Associate Professor HICKERSON.

Drawing

1. **Freehand and Mechanical Drawing:** (a) Freehand drawing: sketching from dictation, sketching of geometrical figures, sketching from flat copy and from models; application of rules of perspective and light and shade. (b) Lettering: freehand and mechanical lettering. (c) Mechanical drafting: the use of instruments; geometrical drafting; orthographic projection; elementary working drawings. Text-books: Anthony's *Mechanical Drawing*, Reinhardt's *Free Lettering*. Required of Freshmen. *Both terms, two hours.* Mr. ATKINSON.
2. **Mechanical and Topographical Drawing:** (a) Mechanism and valve-gears, including the design of cams, gear-teeth, slide-valves, etc.; dimensioned working

drawings of machines from measurements. (b) Topography: topographical symbols, map drawing in pen and ink and colors. Text-books: Spooner's *Machine Drawing and Design* and Daniels' *Topographical Drawing*. Required of Sophomores in Course V and of Juniors in Courses III and IIIA. *Both terms, two hours.* Mr. ATKINSON.

- 2A. Mechanical Drawing: working drawings; tracings; blue-prints; structural work; teaching systems of dimensioning, conventional representations. Topographical drawing: conventional signs and plotting. Text-books: Anthony's *Machine Drawing*, Daniels' *Topographical Drawing*. Required of Sophomores in Courses I, III, and IIIA. *Both terms, two hours.* Mr. ATKINSON.
3. Mechanical Drawing: machine drafting, work drawings; tracing and blue-prints of machine details; assembly drawing; machine design; complete shop and erection drawing with bill of material, in accordance with modern drafting room systems and standards. Required of Juniors in Course II; prerequisite, Drawing 1 and 2. *Both terms, two hours.* Mr. ATKINSON.

DEPARTMENT OF PHYSICS

[For description of Physical Laboratories, see page 184.]

1. General Physics: lectures, with text-book; problems; laboratory work. Required of Sophomores; prerequisite, Mathematics 1. *Both terms, three hours.* Professor PATTERSON and Mr. CHRISLER.

Laboratory fee, \$1.50 a term.

4. Study of Electricity and Magnetism, with Laboratory Work: Franklin and MacNutt's *Electricity and Magnetism*. Required of Sophomores in Course II. *Both terms, two hours.* Professor PATTERSON.

Laboratory fee, \$2.00 a term.

6. Advanced Heat and Thermodynamics. Text-book Edser's *Heat for Advanced Students*. Required of Juniors in Course II, and of Seniors in Course I;

prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.

10. The Elements of Electrical Engineering: an introductory course in the theory and practical operation of direct and alternating current machines and apparatus. Franklin and Esty's *Elements of Electrical Engineering*, Vols. I and II. Laboratory work one afternoon a week. Required of Juniors in Courses II and III, and of Seniors in Course I; prerequisite, a grade of 80 in Physics 1 (spring term). *Both terms, three hours.* Associate Professor DAGGETT and Mr. LABBERTON.

Laboratory fee, \$3.00 a term.

11. Alternating Currents and Alternating Current Machinery: lectures and problem work; testing and study of alternating current machines in the laboratory. Reference book: Steinmetz's *Alternating Current Phenomena*. Required of Seniors in Course II; prerequisite, Physics 10 and Mathematics 4. *Both terms, four hours.* Associate Professor DAGGETT.

Laboratory fee, \$3.00 a term.

- 12A. Illuminating Engineering: theoretical and practical study of modern light sources. Wickenden's *Illumination and Photometry*. Required of Seniors in Course II; prerequisite, Physics 10. *Fall term, two hours.* Associate Professor DAGGETT.

- 12B. Electric Power Transmission: a study of the theory, construction, and operation of low and high tension circuits for the transmission of power. Lectures and problem work. Required of Seniors in Course II; prerequisite, fall term of Physics 11. *Spring term, two hours.* Associate Professor DAGGETT.

- 13B. Electric Design: fundamental principles of the design of electrical machinery; lectures, calculations, preparation of drawings and specifications. Reference books: Hawkins and Wallis' *The Dynamo*, Hobart's *Dynamo Design*, Hobart and Ellis' *High Speed Dynamo Electric Machinery*. Required of Seniors in Course II; prerequisite, Physics 11 and 14, which may be taken

in the same year with 13B. *Spring term, two hours.*
Associate Professor DAGGETT.

14. Electrical Engineering Laboratory: calibration of instruments; testing of electric lamps and storage batteries; dielectric tests; dynamo and motor characteristics; regulation; efficiency; heating. Karapetoff's *Experimental Electrical Engineering*. Required of Seniors in Course II; prerequisite, Physics 10. *Both terms, three hours.* Associate Professor DAGGETT.

Laboratory fee, \$5.00 a term.

15. Steam Engineering: boilers, furnaces, steam pumps and other boiler room accessories; steam engines, valves and valve gears; steam turbines; gas and oil engines, gas producers. Lectures, problems, and laboratory work in the University Power Station. Allen and Bursley's *Heat Engines*. Required of Juniors in Course II; prerequisite, Drawing 1 and Physics 1. *Both terms, two hours.* Associate Professor DAGGETT and Mr. LABBERTON.

Laboratory fee, \$2.50 a term.

DEPARTMENT OF ROMANCE LANGUAGES

French

- A. Elementary Course: grammar; pronunciation taught by the phonetic method; oral and written exercises; translation and reading at sight. This course may be counted for entrance only. *Both terms, three hours.* Professor DEY, Associate Professor TOWLES, and Mr. PARKER.
1. Continuation of Course A: grammar; composition; reading of modern French literature. Freshmen elective in Courses II, III, IIIA, and IV. *Both terms, three hours.* Associate Professor TOWLES and Mr. PARKER.
2. Advanced Course: studies in reading and writing French, and in pronunciation. French phonetics. Sophomore elective in Courses II and IV; prerequisite, French 1. *Both terms, three hours.* Professor DEY.

Spanish

1. Elementary Course: grammar; pronunciation; oral and written exercises; translation and reading at sight. Sophomore elective in Course II. *Both terms, three hours.* Professor DEY.

THE GRADUATE SCHOOL

COMMITTEE

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., PRESIDENT.
CHARLES LEE RAPER, Ph. D., DEAN.
EDWARD KIDDER GRAHAM, A. M.
HARRY WOODBURN CHASE, Ph. D.

FACULTY

WALTER DALLAM TOY, M. A., *Professor of the Germanic Languages and Literatures.*
WILLIAM CAIN, A. M., *Professor of Mathematics.*
HENRY HORACE WILLIAMS, A. M., B. D., *Professor of Philosophy.*
HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*
COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*
MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy.*
*GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*
CHARLES HOLMES HERTY, Ph. D., *Professor of General and Industrial Chemistry.*
CHARLES LEE RAPER, Ph. D., *Professor of Economics.*
WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*
ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*
JOSEPH GREGOIRE DEROU LHAC HAMILTON, Ph. D., *Alumni Professor of History.*
ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*
HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of History.*
WILLIAM MORTON DEY, Ph. D., *Professor of the Romance Languages and Literatures.*
MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*
JAMES FINCH ROYSTER, Ph. D., *Professor of English.*

* Absent on leave 1912-1913.

- CHARLES WESLEY BAIN, M. A., *Professor of Greek.*
HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*
ALVIN SAWYER WHEELER, Ph. D., *Professor of Organic Chemistry.*
TOM PEETE CROSS, Ph. D., *Professor of English.*
WARREN STONE GORDIS, Ph. D., *Acting Professor of Latin.*
THOMAS JAMES WILSON, JR., Ph. D., *Associate Professor of Latin.*
WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*
OLIVER TOWLES, Ph. D., *Associate Professor of the Romance Languages.*
THOMAS FELIX HICKERSON, A. M., S. B., *Associate Professor of Civil Engineering.*
PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*
JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*
KENT JAMES BROWN, Ph. D., *Associate Professor of German.*
JOHN ELIPHALET SMITH, B. S., *Instructor in Geology.*
ALEXANDER MORSE ATKINSON, *Instructor in Drawing.*
WILLIAM BATTLE COBB, A. B., *Assistant in Botany.*
ALLYN RAYMOND BROWNSON, *Assistant in Zoology.*

CANDIDATES FOR GRADUATE WORK

Graduates of the University of North Carolina and of other universities and colleges of good standing are, upon application to the President or Dean, ordinarily admitted to advanced courses of instruction free of charge for tuition. There is, however, a registration fee of twelve dollars and a half for each term. An applicant for admission, unless a graduate of the University of North Carolina, is required to present his diploma and a certificate of scholarship and character. If in any department the preliminary training of candidates has not been sufficient to qualify them for strictly graduate work, they will be required to take such undergraduate courses as may be

prescribed by the head of the department; but these courses will not be counted for hours in work leading to a graduate degree.

Students who are not graduates may, if they prove themselves qualified, take graduate courses; but no graduate degree will be given to a student who does not already hold a Bachelor's degree from some institution of approved standing.

All courses must be approved by the President or Dean.

DEGREES

The University offers to graduate students advanced work leading to the degrees of Master of Arts (A. M.), Master of Science (S. M.), and Doctor of Philosophy (Ph. D.).

MASTER OF ARTS

Candidates for the degree of Master of Arts must complete satisfactorily one year of study consisting of at least fifteen hours a week of recitations or lectures, eight hours of which must be taken from courses in the Graduate Department, the remaining seven from courses in the graduate department or from undergraduate courses open only to Juniors and Seniors. The candidate shall select one major subject and two minor subjects. The course as a whole must have unity and must be pursued with definite aim.

A thesis based on the major subject of study and showing capacity for original research must be submitted on or before May 1 of the given year, and must be filed in typewritten form on or before May 15.

MASTER OF SCIENCE

The degree of Master of Science is conferred in the School of Applied Science under the conditions similar to those stated above for the degree of Master of Arts.

DOCTOR OF PHILOSOPHY

A candidate for the degree of Doctor of Philosophy is required to pursue, in residence at the University, a prescribed course of advanced study and research in one major subject and two allied minor subjects. In general a term of three years is required, but the degree may be secured in two years

in the case of exceptional preliminary training in the major subject.

These requirements of residence and study are, however, entirely secondary. The degree is conferred not simply for faithful study in a determinate field of work for a prescribed period, but because of a high attainment in a special branch of learning, which the candidate must have manifested not only in examination, but by a thesis which gives evidence of independent research and contributes to knowledge. The candidate should choose his major subject in a department in which he has already pursued, for a considerable period, a systematic course of study. To receive this degree, a knowledge of French and German will be found indispensable in most instances. The thesis must be accepted before the candidate may be admitted to examination. The examinations are both written and oral. They demand a minute knowledge of a special field of work as well as a general acquaintance with the department of learning in which the candidate offers himself for the degree.

COURSES OF INSTRUCTION

DEPARTMENT OF BOTANY

[For description of Biological Laboratories, see page 187].

2. Physiology: a general course in plant physiology; lectures with laboratory and field experiments. Open to Juniors and Seniors. *Both terms, three hours.* Professor COKER and Mr. COBB.
3. Special Morphology of the Algæ and Fungi, with attention to the culture of lower fungi, and the identification of mushrooms; lectures with laboratory and field work. Open to Juniors and Seniors. *Both terms, three hours.* Professor COKER and Mr. COBB.
4. Plant Morphology: advanced work in the embryology and anatomy of plants. The student is required to collect and prepare material for the microscopic study of special problems. Theses. *Both terms, five hours or more.* Professor COKER.

DEPARTMENT OF CHEMISTRY

[For description of Chemical Laboratories, see page 185.]

11. Research in Inorganic, Analytical, and Industrial Chemistry. This course (with 12 and 13) is intended only for applicants for the degree of Doctor of Philosophy or properly equipped students who desire special training in advanced chemical research. It requires, in addition to the laboratory work, daily conference with the professor and continual reference to the literature touching the matter under investigation. The work is usually assigned by the professor, but by special permission the student may elect to work upon problems to which he wishes to give particular attention. *Both terms, six hours.* Professor HERTY.

Laboratory fee, \$12.50 a term.

12. Research in Organic Chemistry. The statements made in regard to course 11 apply also to this course. *Both terms, six hours.* Professor WHEELER.

Laboratory fee, \$12.50 a term.

13. Research in Physical Chemistry. *Both terms, six hours.* Associate Professor BELL.

Laboratory fee, \$12.50 a term.

14. Advanced Inorganic Chemistry. The elements are studied with the idea of showing the fundamental laws of Chemistry and the deep-seated relations involved in and leading up to the Periodic System. Attention is also given to those portions of Inorganic Chemistry not usually dwelt upon in the regular courses. The applications of Physico-chemical laws and generalizations are emphasized throughout the course. *Both terms, two hours.* Professor HERTY.

15. Advanced Organic Chemistry: Seminar Course: readings and discussions; a study of class reactions with reference to their application to organic research is taken up, and special attention is given to the most important modern investigation. *Both terms, two hours.* Professor WHEELER.

The *Journal Club* meets fortnightly. The current journals, American, English, German, and French, purely scientific and technical, are reviewed by the students and instructors. Attendance upon the meetings of the Club is expected of all students taking the above courses.

DEPARTMENT OF ECONOMICS

2. Public Finance: a general study of the principles which are involved in the revenues and expenditures of the State, and in the relation of the State to the industries of its citizens; a special study of taxation and the tariff; lectures, readings, and reports; Adams' *The Science of Finance*. Open to Seniors. *Both terms, two hours.* Professor RAPER.

Given in alternate years; to be omitted in 1913-1914.

3. Economic Institutions and Thought in England and the United States; a general study, largely from the his-

torical point of view, of the economic institutions and the systems of economic thought in England and the United States; a special study of socialism; lectures, readings, and reports; Cheyney's *Industrial and Social History of England*, Brooks' *The Social Unrest*, Spargo's *Socialism*, and the *Communist Manifesto* (Marx and Engels). Open to Seniors. *Both terms, two hours.* Professor RAPER.

DEPARTMENT OF EDUCATION

12. The Philosophy of Education: a discussion of the underlying principles shaping educational systems, past and present. Seminar course; readings, theses, discussions. *Both terms, two hours.* Professor CHASE.
13. American Education: a study of the development of the school systems in the United States, with a comparative study of the principal European systems; research and lectures. *Both terms, two hours.* Professors NOBLE and CHASE.

DEPARTMENT OF ENGLISH

Candidates for the degree of Doctor of Philosophy who elect advanced work in the English language as their major subject will be expected to take one or more courses in other Germanic languages. All graduate work in the English languages presupposes English 6, or its equivalent, and a reading knowledge of German; but, in exceptional cases, English 6 and German A may be taken along with the English graduate courses.

6. Introductory Course in Old and Middle English: in the first term a careful study is made of Old English grammar and syntax; a large amount of easy Old English prose is read. Text: Bright's *Anglo-Saxon Reader*. In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. Texts: Greenough's *Selections from Chaucer*; Emerson's *Middle English Reader*. The aim of the course is to acquaint the student with the main facts of the beginning and development of the English language. The language of the

older periods is considered in its relations to present day English; many points of confusion in modern English, unexplained by the rules of logical grammar, are made clear. Open to Juniors and Seniors. *Both terms, three hours.* Professor ROYSTER.

The attention of students electing this course is called to course 13 in the Latin Department.

7. Advanced Course in Old English and Middle English: the work of the first term continues the study of Old English grammar, particularly in its relations to that of the other Indo-European languages, and takes up the reading of Old English poetry. Texts: Wyatt's *Beowulf*; Blackburn's *Exodus and Daniel*. A study of Chaucer's minor poems will be the basis of the work of the second term, 1914; prerequisite, English 6, or its equivalent. Open to Seniors. *Both terms, two hours.* Professor ROYSTER.
8. History of the English Language: This course supplements English 6. It will trace the growth of the English language from its beginnings in England until today. Junior and Senior elective. *Both terms, three hours.* Professor ROYSTER.

DEPARTMENT OF GEOLOGY

[For description of Geological Laboratories, see page 188.]

5. Petrography: lectures, laboratory work, and theses. Open to Juniors and Seniors. *Both terms, three hours.* Mr. SMITH.
Laboratory fee, \$2.00 a term.
6. Advanced Field Work and Special Research in Geology and Geography: problems assigned individually and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Open to Seniors. *Both terms, three hours.* Professor COBB.
9. Research Course in Historical Geology. *Both terms, three hours.* Professor COBB.

DEPARTMENT OF GERMANIC LANGUAGES

3. History of German Literature: lectures with parallel reading and written reports. Prerequisite, German 2A or 2B. Open to Juniors and Seniors. *Both terms, two hours.* Professor TOY.
4. Middle High German: Paul's *Mittelhochdeutsche Grammatik*; Bachmann's *Mittelhochdeutsches Lesebuch*; translation into New High German. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor BROWN.

This course alternates with course 5; to be omitted in 1913-1914.

5. Old High German: Braune's *Althochdeutsche Grammatik*; Braune's *Althochdeutsches Lesebuch*. *Open to Juniors and Seniors. *Both terms, two hours.* Associate Professor BROWN.

This course alternates with course 4; to be given in 1913-1914.

6. Gothic: Braune's *Gotische Grammatik*; selected parts of Paul's *Grundriss der Germanischen Philologie*. This course is intended to lay the foundation for the philological study of the German dialects. Open to Juniors and Seniors. *Both terms, three hours.* Professor TOY.

- 7A. Goethe: Goetz von Berlichingen, Tasso, Dichtung und Wahrheit, Hermann und Dorothea. In connection with the interpretation of the texts, the life of Goethe will be studied. Selected chapters of Scherer's *History of German Literature*, Francke's *History of German Literature*, and Bielschowsky's *Goethe, Sein Leben und Seine Werke* will be read. Open to Juniors and Seniors; prerequisite, German 2A or 2B or 3. *Both terms, two hours.* Associate Professor BROWN.

This course may be elected only after consultation with the instructor.

- 7B. Goethe's Faust, Parts I and II. Open to Juniors and Seniors; prerequisite, German 2A or 2B or 3. *Both terms, two hours.* Professor TOY.

This course may be elected only after consultation with the instructor.

DEPARTMENT OF GREEK

7. Greek Drama: Euripides, Iphigenia Among the Taurians; Sophocles, Œdipus Tyrannus; Æschylus, Agamemnon; Aristophanes, Wasps; Aristotle, Poetics. Open to Juniors and Seniors. *Both terms, three hours.* Professor BAIN.
8. Prose Composition: advanced course. *Fall term, two hours.* Professor BAIN.
11. Greek History: the selections from Greek historians in Parts I and II of Baumeister's *Quellenbuch zur Alten Geschichte*. *Both terms, two hours.* Professor BAIN.
12. Bucolic Poetry: the Idylls of Theocritus, Bion, and Moschus. *Both terms, two hours.* Associate Professor BERNARD.
17. Greek Epigraphy and Palæography: a brief introduction to the study of Greek inscriptions and manuscripts, lectures and reports. *Spring term, two hours.* Professor BAIN.

The attention of students electing this course is called to course 14 in the Latin Department.

18. Critical Study of Special Authors: with lectures on Classical Greek Syntax, metres, dialects, oral and written translation into Greek, the history of Athens from the battle of the Arginusæ to the Restoration of the Democracy. *Both terms, three hours.* Professor BAIN.

DEPARTMENT OF HISTORY

10. Civil War and Reconstruction: a detailed study of the constitutional, political, and economic phases of the period of the Civil War and Reconstruction; lectures, readings, and reports. Open to Seniors. *Both terms, two hours.* Professor HAMILTON.
13. The American Constitution: research in the history of the Constitution of the United States. *Both terms, two hours.* Professor WAGSTAFF.

14. American Politics: lectures and research in the history of political parties of the United States. *Both terms, two hours.* Professor HAMILTON.

DEPARTMENT OF LATIN

5. Pliny: Selected Letters; Juvenal, Satires; Martial, selected epigrams; reading with special reference to the private life of the Romans at the close of the first century A. D. Open to Juniors and Seniors. *Both terms, two hours.* Associate Professor WILSON.

This course alternates with course 9; to be omitted in 1913-1914.

9. Roman Elegiac Poets: rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives of the elegists; the history of Greek and Roman elegy. Open to Juniors and Seniors. *Both terms, two hours.* Professor HOWE.

This course alternates with course 5; to be given in 1913-1914.

11. The Study of a Particular Author or Period in Roman Literature: practice in rapid reading, with translation of the more difficult passages only. *Both terms, two hours.* Professor GORDIS.
12. Lectures on Comparative Syntax of Greek and Latin: principles illustrated from Homer and Terence. *Both terms, two hours.* Associate Professor WILSON.
14. Latin Epigraphy and Palæography: a brief introduction to the study of Latin inscriptions and manuscripts; lectures and reports. *Fall term, two hours.* Professor GORDIS.

The attention of students electing this course is called to course 17 in the Department of Greek.

DEPARTMENT OF MATHEMATICS

- 3C. Stereotomy: a course in the application of descriptive geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers and culverts; a study of warped surfaces and drawings for the helicoidal arch. Open to Seniors;

prerequisite, Mathematics 3B. *Spring term, two hours.*
Mr. ATKINSON.

4. Calculus; Analytic Mechanics. Open to Juniors and Seniors; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.
5. Theory of Equations (Burnside and Panton). Open to Juniors and Seniors. *Both terms, three hours.* Professor HENDERSON.
6. Differential Equations (Murray). Open to Seniors. *Both terms, three hours.* Professor HENDERSON.
7. Road and Railroad Surveying and Engineering. Open to Seniors. *Both terms, three hours.* Professor STACY.
- 7A. Hydraulics and Sanitary Engineering. Open to Seniors. *Both terms, three hours.* Professor STACY.
8. Mechanics of Materials. Prerequisite, Mathematics 4. Open to Seniors. *Both terms, three hours.* Professor CAIN.
10. Theory of Structures. Prerequisite, Mathematics 4. Open to Seniors. *Both terms, four hours.* Associate Professor HICKERSON.
11. Retaining Walls and Dams; Arches. Senior elective; prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.
13. Design of Structures. May be taken in connection with Mathematics 8 and 10. *Both terms, three hours.* Associate Professor HICKERSON.
15. Advanced Differential and Integral Calculus. Prerequisite Mathematics 4. *Both terms, two hours.* Professor CAIN.
17. Vector Analysis. Prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.

18. Modern Geometry, Pure and Analytic. Texts: Emch, Scott, Russell. Prerequisite, Mathematics 4. *Both terms, three hours.* Professor HENDERSON.

DEPARTMENT OF PHILOSOPHY

5. Epistemology: a study of the Critical Philosophy; lectures, theses. First term: Prolegomena and Practical Reason and the works that prepared the way for Kant. Second term: *Kritik der reinen Vernunft*. *Both terms, three hours.* Professor WILLIAMS.
6. A Companion Course to Philosophy 4: The aim of the course is to sketch the forces masterful in modern life. Open to Juniors and Seniors. *Both terms, three hours.* Professor WILLIAMS.

DEPARTMENT OF PHYSICS

2. Modern Electrical Theory: the electron theory, electrolysis, conduction of electricity through gases, electric nature of matter, radioactivity. Prerequisite, Physics 1. Open to Juniors and Seniors. *Both terms, two hours.* Professor PATTERSON.
6. Advanced Heat and Thermodynamics. Text-book: Edser's *Heat for Advanced Students*. Prerequisite, Physics 1 and Mathematics 2. Open to Juniors and Seniors. *Both terms, two hours.* Professor PATTERSON.
11. Alternating Currents and Alternating Current Machinery: lectures and problem work; testing and study of alternating current machines in the laboratory. Reference book: Steinmetz's *Alternating Current Phenomena*. Prerequisite, Physics 10 and Mathematics 4. Open to Juniors and Seniors. *Both terms, four hours.* Associate Professor DAGGETT.

Laboratory fee, \$3.00 a term.

- 12B. Electric Power Transmission: a study of the theory, construction, and operation of low and high tension circuits for the transmission of power. Lectures and

problem work. Prerequisite, fall term of Physics 11. Open to Seniors. *Spring term, two hours.* Associate Professor DAGGETT.

- 13B. Electric Design: fundamental principles of the design of electrical machinery; lectures, calculations, preparation of drawings and specifications. Reference books: Hawkins and Wallis' *The Dynamo*, Hobart's *Dynamo Design*, Hobart and Ellis' *High-Speed Dynamo Electric Machinery*. Prerequisites, Physics 11 and 14, which may be taken in the same year with 13B. Open to Seniors. *Spring term, two hours.* Associate Professor DAGGETT.

14. Electrical Engineering Laboratory: calibration of instruments, testing of electric lamps and storage batteries; dielectric tests; dynamo and motor characteristics; regulation; efficiency; heating. Karapetoff's *Experimental Electrical Engineering*. Prerequisite, Physics 10. Open to Seniors. *Both terms, three hours.* Associate Professor DAGGETT.

Laboratory fee, \$5.00 a term.

DEPARTMENT OF ROMANCE LANGUAGES

3. French Literature: a general outline of its various periods; lectures, reading, reports. Prerequisite, French 2. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor TOWLES.

- 4A. French Literature in the Seventeenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor TOWLES.

This course alternates with course 4B; to be omitted in 1913-1914.

- 4B. French Literature in the Eighteenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Professor DEY.

This course alternates with course 4A; to be given in 1913-1914.

5. French Literature in the Nineteenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Professor DEY.

6. Old French: reading of the oldest texts: *La Chanson de Roland*; *Aucassin et Nicolette*; *Chrétien de Troyes*; lectures on French Phonology and Morphology. Prerequisite, French 2, a knowledge of Latin equivalent to courses 1 and 2 of the Latin Department, and a reading knowledge of German. *Both terms, two hours.* Associate Professor TOWLES.
7. Provençal: a study of the ancient language and literature of Provence. Prerequisite, course 6. *Both terms, two hours.* Professor DEY.

DEPARTMENT OF ZOOLOGY

[For description of Biological Laboratories, see page 187].

2. Comparative Anatomy and Embryology of the Vertebrates; dissection of types, especially amphioxus, petromyzon, fish, fowl, mammal; early stages in embryology of ascaris, starfish; segmentation and formation of germ layers in teleost and frog; germ layers and development of characteristic vertebrate organs in chick; selected stages in development of mammal (rabbit, pig); fundamentals of microscopic technique; laboratory work with occasional lectures. Junior and Senior elective. *Both terms, three hours.* Professor WILSON and Mr. BROWNSON.
3. General Zoology: an advanced course for such as expect to teach or to carry on investigations in zoological, or allied medical, subjects. Laboratory work to cover anatomy, with some histology and embryology, of chief orders of animals, especially invertebrates: collecting trips; identification of forms; essentials of gross and microscopic photography: microscopic technique supplementary to that of the usual courses in embryology and histology. Conferences and lectures dealing with morphology of groups, history of zoology, and with the theory of biology as deduced from facts of comparative and experimental study. Junior and Senior elective. *Both terms, five hours.* Professor WILSON.

4. **Animal Morphology:** detailed study of problems in microscopic anatomy and embryology, chiefly comparative, in part experimental; laboratory work with use of classical text-books and original memoirs; theses. *Both terms, five hours or more.* Professor WILSON.

PART THREE

**PECUNIARY AID AND EXPENSES
MEDALS AND PRIZES
REGULATIONS**

PECUNIARY AID AND EXPENSES

FELLOWSHIPS AND SCHOLARSHIPS

THE TOCH FELLOWSHIP IN CHEMISTRY. (Established in 1905 by Mr. Maximilian Toch.) The holder is expected to devote himself to research in technical chemistry. This fellowship yields \$250 annually.

THE LEDOUX FELLOWSHIP IN CHEMISTRY. (Established in 1911 by Dr. Albert R. LeDoux.) The holder is expected to devote himself to research in chemistry. This fellowship is endowed and yields \$300 annually.

A FELLOWSHIP IN TECHNICAL CHEMISTRY, established in 1911, is offered to graduate students for research in technical chemistry. This fellowship yields \$200 annually.

A FELLOWSHIP IN ORGANIC CHEMISTRY is offered to graduate students for research in Organic Chemistry. This fellowship yields \$300 annually.

THE LIBRARY FELLOWSHIPS, two in number, established in 1907, yield each \$150 annually. The holders are expected to assist in the Library.

THREE TEACHING FELLOWSHIPS, established in 1907, yield each \$200 annually. The holders are expected to assist in the work of instruction in the departments to which the fellowships are assigned.

THE CAMERON SCHOLARSHIPS. (Established in 1892.) The heirs of Paul Carrington Cameron founded, in his memory, ten scholarships of the value of sixty dollars each.

THE DIALECTIC AND PHILANTHROPIC LITERARY SOCIETIES' SCHOLARSHIPS. (Established in 1893.) The Dialectic and Philanthropic Literary Societies of the University founded two scholarships of the value of sixty dollars each, recipients of which shall give assistance in the Library.

THE MOORE SCHOLARSHIPS. (Established in 1881.) Bartholomew Figures Moore, of Raleigh, bequeathed five thousand

dollars, the interest of which shall be devoted to paying the tuition of students.

THE MARY ANN SMITH SCHOLARSHIPS. (Established in 1891.) Miss Mary Ann Smith bequeathed thirty-seven thousand dollars for the foundation of scholarships, the number of scholarships to be determined by the amount of the income.

THE MARY RUFFIN SMITH SCHOLARSHIPS. (Established in 1885.) Miss Mary Ruffin Smith bequeathed to the University, in memory of her brother, Dr. Francis Jones Smith, a valuable tract of land in Chatham county of fourteen hundred and sixty acres, known as Jones's Grove. The will provides that rents of the land, or the interest on the purchase money, if sold, shall be used to pay the tuition of such poor students as the Faculty shall appoint.

THE SPEIGHT SCHOLARSHIPS. (Established in 1892.) The late Mrs. Mary Shepard Speight bequeathed ten thousand dollars to the University. The income shall be used to pay the tuition of needy students; but if tuition is ever made free, the income shall be used toward paying the salaries of the professors.

THE WOOD SCHOLARSHIP. (Established in 1892.) Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her late husband, Dr. Thomas Fanning Wood, a scholarship of the value of sixty dollars.

THE WEIL SCHOLARSHIP. (Established in 1898.) A fund established by Mr. Henry Weil, of Goldsboro, furnishes one scholarship of the value of sixty dollars.

THE ARMFIELD SCHOLARSHIPS. (Established in 1901 and 1904.) These scholarships are founded by the generosity of Mr. Eugene M. Armfield, of the class of 1888, High Point, N. C.

THE ALUMNI SCHOLARSHIPS. These scholarships have been established by the gifts of Alumni. A scholarship will be awarded for each one thousand dollars given.

THE KENNETH MURCHISON SCHOLARSHIPS. (Established in 1904.) These scholarships have been founded by Mrs.

Shirley Carter, of Baltimore, Md., and Mrs. James Sprunt, of Wilmington, N. C., in memory of their father. They are awarded by the founders.

THE BABBITT SCHOLARSHIP. (Established in 1910.) This scholarship was founded by the Babbitt Corporation. It is awarded annually by Professor Herty to that member of the incoming Senior Class who has made the best record in the Department of Chemistry. The holder of this scholarship is required to investigate during the Senior year some subject connected with the chemistry of the oleoresins. The scholarship yields annually \$250.

None of these scholarships is open to students in the professional Schools of Law, Medicine, and Pharmacy.

All applications for scholarships must be filed in the President's office on or before August 15, and must be in the regular form prescribed by the University. Blank forms are supplied on application to the President.

FREE TUITION

By an act of the Legislature in 1887, free tuition is given to candidates for the ministry, to the sons of ministers, to young men under bodily infirmity, to teachers, and to young men preparing to teach. This enables the University to aid effectively the public school teachers of the State.

LOAN FUNDS

THE DEEMS FUND. (Established in 1879.) A fund of six hundred dollars was established by Rev. Charles Force Deems, D. D., late pastor of the Church of the Strangers, New York City, formerly a professor in the University, in memory of his son, Lieutenant Theodore Disosway Deems. In 1881 the gift was greatly enlarged through the munificence of Mr. William H. Vanderbilt, by a gift of ten thousand dollars, "as an addition to the Deems fund, to be loaned to indigent students of the University."

THE MARTIN FUND. This fund has been established by the bequest of Mr. Thomas D. Martin, of Raleigh. Only the inter-

est of the fund can be used for loans. It became available during the session of 1907-1908.

All applications for loans must be filed in the President's office on or before August 15.

Applications for loans will not be considered unless accompanied by testimony from responsible persons as to poverty and merit. The funds are limited in amount and are loaned only on the security of two approved signatures and at the legal rate of interest.

EXPENSES

Every effort is made to reduce to the lowest point the necessary expenses of an education at the University. The charges for each of the two terms are as follows:

Tuition fee	\$30.00
Fee for Matriculation*.....	12.50
<hr/>	
Total	\$42.50

Students taking courses in the laboratories are charged a small fee for materials. Every student must keep on deposit with the Treasurer two dollars as security for damages. Willful damage to University property is charged to the perpetrator, if known; otherwise it is charged to the general deposit for damages. Any balance is returned to the student at the end of the year.

Excellent board is furnished at the University Inn for fifteen dollars a month. Good board is also furnished at Commons for ten dollars a month. A few students can earn their board at Commons by waiting on the tables. The entire annual expenses need not exceed three hundred dollars, and they may be reduced to two hundred dollars.

It is confidently believed that no institution offers wider opportunities for self help to meritorious students of slender means. The desire is that no worthy boy, however poor, shall ever be turned away for lack of means. To such the University and town offer unusual opportunities for support. Many students are now working their way through college by every

* This fee includes also the gymnasium fee, the library fee and the fee for medical services.

form of honorable labor. A number are here as a result of money earned or borrowed. Seventy are aided by loans, and about five hundred have received aid from the University in loans and scholarships in the past twenty years. A few students are selected by the authorities as waiters at Commons. Otherwise all opportunities available in the University and town must be secured by the personal efforts of the individual, or with the assistance of the Faculty Committee on Self-Help. They are not assigned by the President.

DORMITORY ACCOMMODATIONS

The University buildings contain unfurnished rooms, available for the accommodation of something over three hundred students. There is no charge for service in addition to the rent. All rooms are fitted with electric lights. Room rent ranges from seventy-five cents to \$2.75 a month for each occupant, the price depending upon the location of the room. Battle, Vance, Pettigrew and Smith dormitories contain furnished rooms.

All the buildings of the University are heated by hot water according to the most improved methods. In the dormitories the charge for light and heat will be \$2.00 a month for each room.

MEDALS AND PRIZES

THE COLONIAL DAMES PRIZE. (Established in 1908.) The North Carolina Society of Colonial Dames offers annually a first prize of fifty dollars and a second prize of twenty-five dollars for the best essays on some subject connected with the Colonial Period of North Carolina.

THE LITERARY ESSAY MEDAL. (Established in 1890.) A gold medal is offered annually by Professor Thomas Hume to that member of the Senior Class who shall present the best essay or thesis on some distinctly literary subject.

THE MANGUM MEDAL IN ORATORY. (Established in 1878.) A gold medal founded by the Misses Mangum, late of Orange county, in memory of their father, Willie Person Mangum, is continued by his granddaughters, Mrs. Julian A. Turner, Mrs. Stephen B. Weeks, and Miss Preston Leach, and awarded to that member of the Senior Class who shall deliver the best oration at Commencement.

THE BINGHAM PRIZE IN DEBATE. (Established in 1899.) This prize is offered by Mr. R. W. Bingham in memory of his great-grandfather, grandfather, father, and brother. It is given annually for excellence in debate. The contestants are representatives of the Literary Societies, and the contest is held on Tuesday evening of Commencement week.

THE KERR PRIZE IN GEOLOGY AND MINERALOGY. (Established in 1889.) A prize of fifty dollars is offered annually by Mr. William H. Kerr in memory of his father, Professor Washington Caruthers Kerr, to any undergraduate or graduate student, for the best thesis containing original work in the geology or mineralogy of North Carolina.

THE EBEN ALEXANDER PRIZE IN GREEK. (Established in 1887.) A prize of ten dollars is offered annually to that member of the Sophomore Class who shall present the best rendering into English of selected passages of Greek not previously read.

THE WORTH PRIZE IN PHILOSOPHY. (Established in 1883.) Mr. Charles Williams Worth, in memory of his father, David Easton Worth, of the class of 1853, will print the best thesis submitted by a student in Philosophy 4.

THE EARLY ENGLISH TEXT SOCIETY PRIZE. (Established in 1886.) A special prize is offered annually by the Early English Text Society, of London, for advanced work in Anglo-Saxon and Middle English.

THE BRYAN PRIZE. (Established in 1903.) A prize will be given annually by Mr. William Jennings Bryan for the best thesis in Political Science.

THE HUNTER LEE HARRIS MEMORIAL. (Established in 1903.) Dr. Charles Wyche, of St. Louis, offers annually, in memory of Hunter Lee Harris, of the class of 1893, a gold medal for the best original story by any student in the University.

THE THOMAS HUME PRIZE. (Established in 1904.) A prize of fifty dollars is offered annually by Mr. W. G. Peckham, of New York, for the best work in the Old English Ballads and Shakespeare or Milton.

THE WILLIAM CAIN PRIZE IN MATHEMATICS. (Established in 1908.) A gold medal is offered annually by Professor William Cain to that student who shall take the highest rank in Mathematics 4. No student will be recommended for the prize unless he attain to grade 2.

THE PRESTON CUP, given by the Hon. E. R. Preston, in memory of his brother, Ben Smith Preston, will be awarded annually to the undergraduate student who during the months September to April has done the best work of a journalistic nature.

Certain prizes are offered also in the Professional Schools of Law, Medicine, and Pharmacy. For these, see under the several schools.

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THE EBEN ALEXANDER PRIZE IN GREEK. (Established in 1887.) A prize of ten dollars is offered annually to that member of the Sophomore Class who shall present the best rendering into English of selected passages of Greek not previously read.

All occupants are required to sign a contract subject to the following special rules:

In order to retain his room for the next session, a student must file with the Treasurer before May 20th a room contract properly signed. Double rooms must be signed for by both intending occupants. The rooms thus signed for will be retained until August 31st provided a deposit of \$10 be paid by each intending occupant before August 15th. The \$10 deposit will be forfeited in case the signer or signers do not themselves occupy the room and pay the full rent. Rooms not signed for or forfeited by failure to pay at the proper date will be assigned in the order of application. No dogs shall be kept in the University dormitories. Breach of this regulation leads to forfeiture of the room.

The right to occupy a room is not transferable and terminates with the expiration of the lease. Any attempt on the part of an occupant of a room to sell or transfer his right to occupancy shall be deemed a fraudulent transaction. The penalty of violating this rule shall be the forfeiture of the room by the new lessee.

CONDUCT

By order of the Board of Trustees the Faculty is directed to dismiss from the University any student who is known to engage in drinking intoxicating liquors, gambling, hazing in any form, (presence at hazing is regarded as participation), or to be guilty of dissolute conduct.

Students persistently neglectful of duty, or addicted to boisterous conduct or rowdyism, may be requested to leave the University.

ATTENDANCE

Regular attendance upon lectures and recitations is required of all students.

In any term, absences are counted from the first regular meeting of each class. In no case will a student be considered present at any class until he has been registered as a member of that class. No student will be allowed more than five unexcused absences during a month. When this number is exceeded he will be placed on probation, and notified that any

REGULATIONS

REGISTRATION

All students are expected to present themselves for registration on *Monday, Tuesday, or Wednesday, September 8, 9, or 10, 1913*, and *Friday or Saturday, January 2 or 3, 1914*, between the hours of 9 A. M. and 4 P. M., at the office of the Registrar.

ARRANGEMENT OF COURSES

Every student, when he presents himself for registration, must submit a list of courses, required and elective, which he desires to pursue.

No student will be allowed to take less than 15 hours nor more than 18 hours of class-room work a week without special permission of the Faculty or of the President.

Students desiring to change their courses must make written application to the Committee on Courses for the desired change. The application will be considered by the committee and the instructors in the departments concerned and will be granted only after a careful consideration of the facts in each case. No changes will be permitted after the first Tuesday following the registration days except such as are granted after application to, and approval by, the Faculty.

Candidates for more than one degree shall not offer the same elective in two courses nor a required study in one course as an elective in another.

ASSIGNMENT OF ROOMS

The University buildings contain two hundred and four unfurnished double rooms, available for the accommodation of students. These rooms are assigned to students by the Treasurer, at the beginning of each term, in the order of application.

The President reserves the right to require any student whom for any reason he considers an undesirable tenant to vacate a room in the University buildings.

All occupants are required to sign a contract subject to the following special rules:

In order to retain his room for the next session, a student must file with the Treasurer before May 20th a room contract properly signed. Double rooms must be signed for by both intending occupants. The rooms thus signed for will be retained until August 31st provided a deposit of \$10 be paid by each intending occupant before August 15th. The \$10 deposit will be forfeited in case the signer or signers do not themselves occupy the room and pay the full rent. Rooms not signed for or forfeited by failure to pay at the proper date will be assigned in the order of application. No dogs shall be kept in the University dormitories. Breach of this regulation leads to forfeiture of the room.

The right to occupy a room is not transferable and terminates with the expiration of the lease. Any attempt on the part of an occupant of a room to sell or transfer his right to occupancy shall be deemed a fraudulent transaction. The penalty of violating this rule shall be the forfeiture of the room by the new lessee.

CONDUCT

By order of the Board of Trustees the Faculty is directed to dismiss from the University any student who is known to engage in drinking intoxicating liquors, gambling, hazing in any form, (presence at hazing is regarded as participation), or to be guilty of dissolute conduct.

Students persistently neglectful of duty, or addicted to boisterous conduct or rowdyism, may be requested to leave the University.

ATTENDANCE

Regular attendance upon lectures and recitations is required of all students.

In any term, absences are counted from the first regular meeting of each class. In no case will a student be considered present at any class until he has been registered as a member of that class. No student will be allowed more than five unexcused absences during a month. When this number is exceeded he will be placed on probation, and notified that any

further unexcused absences on his part during the next month may necessitate his withdrawal from college. This notice will be sent to his parents or guardian also.

Any student whose absences from a class during any month equal the number of scheduled meetings of the class for one week is required to stand a special examination on that month's work, within the first two weeks of the succeeding month at an hour to be announced by the instructor. In the case of those whose absences in a given month reach the number indicated above, and who fail to stand the examination provided for such absences, it is left to the discretion of the instructor to retain them in his class.

Students who are absent from a class during the months of December, January, or May as much as 25 per cent. of the scheduled meetings of the class must stand an examination for these months before being entitled to any grade on the term examination. This special examination is to be held in connection with the regular term examinations, or at some time during the examination period.

Students who are absent during any term as much as $33\frac{1}{3}$ per cent. of the scheduled meetings of the class, except in case of prolonged sickness necessitating at least half the absences, may at the discretion of the instructor be debarred from the term examination.

Attendance at Chapel is compulsory for all students in the University except for members of the professional departments and for such others as are specially excused. Absence from Chapel will subject the student to discipline by the Executive.

No student is allowed to absent himself from the University without written permission from the President or his representative. This permission may, at the discretion of the executive officer, be granted only upon the formal request of the parent or guardian.

EXAMINATIONS

Regular examinations on all subjects are held at the close of each term. Excuses from examinations are granted only in case of absolute necessity. Such an excuse, to be valid, must be obtained from the President by the day of examination, and

communicated officially to the instructor holding the examination.

Freshmen, Sophomores, and Juniors who have been excused from an examination or have received the grade 5 (see page 124) in any subject will be given one, and only one, opportunity to make good the deficiency by special examination. Examinations on the Fall term of a subject may be made good either in the following September, according to the schedule given below, or at the regular examinations of the next lower class in January. Examinations on the Spring term of a subject may be made good either in the following September, according to the schedule given below, or at the regular examinations of the next lower class in May. In case a student fails in the special examination, he must repeat the subject with the class of the succeeding year. If the unremoved condition be in an elective subject not offered for the succeeding year, the student must take another elective valued at the same number of hours.

Seniors who have been excused from an examination or have received the grade 5 in any subject at either the Fall or Spring examination will be given but one opportunity to make good the deficiency by special examination, viz., during the regular examination period of the three lower classes in May.

Papers handed in at special examinations by students who have been officially excused from the regular examination will be graded. All others will be marked either "passed" or "failed." Students who hand in papers at regular examinations are considered to have relinquished any claim to grades on special examinations.

Students who absent themselves from regular examinations without having obtained an official excuse, and those who are present at the regular examinations but do not hand in papers, are given the grade 6 (see page 124). They are required to repeat the subject with the next lower class, or, in case of an elective not offered in the succeeding year, to take another elective valued at the same number of hours.

A student wishing a special examination in any subject must deposit an application in the office of the Registrar at least one week before the beginning of the period of examinations.

Each student is required to subscribe his name to the follow-

ing pledge on every paper: "*I hereby certify that during this examination I have neither given nor received aid.*" No paper without the pledge will be read.

The order of examinations for the removal of conditions in September, 1913, will be as follows:

Wednesday, September 3.

10 A. M.	English.	2:30 P. M.	Zoology.
			Botany.

Thursday, September 4.

10 A. M.	German.	2:30 P. M.	Mathematics.
	French.		

Friday, September 5.

10 A. M.	Latin.	2:30 P. M.	Geology.
	Philosophy.		Education.

Saturday, September 6.

10 A. M.	Physics.	2:30 P. M.	Chemistry.
	Greek.		History.
			Economics.

STANDING

Semi-annual reports of the standing of all students in all the studies of the previous term are sent to parents or guardians. The reports are based upon the following system of marking:

Grade 1,	95-100	per cent.
Grade 2,	90-95	per cent.
Grade 3,	80-90	per cent.
Grade 4,	70-80	per cent.
Grade 5,	60-70	per cent.
Grade 6,	below 60	per cent.

Students must attain a grade of 4 to pass in any study. Grade 5 indicates that the student is conditioned, but may remove the deficiency by special examination, as explained on page 123. Students receiving grade 6 in any study must take such study again with the next lower class, or in case of an elective not

offered in the succeeding years, must take another elective valued at the same number of hours.

A student who has failed on all the examinations of the year in any college study may not take a higher class in that department, until he makes good his deficiency.

A student to be ranked as a Sophomore must have passed twelve hours of work; to be ranked as a Junior, twenty-four hours; to be ranked as a Senior, forty-two hours.

No Freshman who fails to pass at least six hours; and no Sophomore or Junior who fails to pass nine hours shall be re-admitted to the College the following year except by a special vote of the faculty or a delegated committee of the faculty.

In addition to the semi-annual reports, there are sent out during the session six monthly reports in which the standing of students is indicated in a general way.

CERTIFICATES

A certificate is granted to a student who has completed with credit, in any department except those of Mathematics, Chemistry, Physics, and Geology, all work required for a degree together with elective work in the same department. (For detailed statement of requirements, see under the several departments of instruction.)

GRADUATION

Each Senior will be officially informed by the Registrar in August of all deficiencies standing against him.

The number of orations in the contest for the Mangum Medal is limited to four. The candidates must be members of the College or the School of Applied Science, and must announce their subjects to their respective Deans by February 1. The orations shall be delivered in private before a committee of the Faculty on May 1, who shall decide upon the relative merits of the orations. The four successful candidates are known as the Commencement Orators of the Senior Class.

ATHLETIC AND OTHER ORGANIZATIONS

No student will be allowed to take part in athletic contests, concerts, debates, etc., entailing absence from the University, whose parent or guardian objects to such participation.

A student who was in attendance upon the University during a previous term or session must have passed satisfactory examinations upon at least eight hours of work before he will be allowed to represent the University in any athletic contest or in any other public capacity.

No student reported as deficient in a majority of his classes may participate in any athletic contest or otherwise publicly represent the University, until the deficiency is made good.

No team or club will be allowed to be absent from the University for more than ten lecture days during the term.

The manager of each athletic team or musical club shall submit to the Athletic Committee or to the President a schedule of all engagements before positive arrangements are made.

The rules governing the eligibility of players are as follows:

1. Before any student can become a member or a substitute member of any athletic team in the University, and take part in any intercollegiate contest, he must make application to the Committee on Athletics in the University and secure the endorsed approval of that Committee to his application. It shall be the duty of the Athletic Committee to have the Executive officers of the University endorse such application to the effect that the applicant is a regular student of the University, registered on or before October 12 of the fall session.

2. It shall be the duty of the Athletic Committee to inquire into and make a record of the athletic experiences of the applicant, and it shall be the duty of the applicant to appear before the Committee and answer on his honor such questions as the Committee may see fit to ask.

3. It shall be the duty of the Athletic Committee to require a pledge in writing of the applicant, certifying on his honor that he has never accepted, directly or indirectly, remuneration, compensatory gift, valuable consideration, or promise thereof, for his athletic services, and that he is in the proper and strict sense of the word an amateur player in collegiate athletic sports, before the Committee endorses his application.

4. No student of the University who has been a member or a substitute member of a baseball or football team at another college* or university during the preceding college year shall be permitted to become a member of either baseball or football team at this University until he shall have been a student in residence at this University for one collegiate year.

5. No person whose name is in the faculty list or appears in the catalogue list of officers of instruction and administration of the University, and who receives remuneration therefrom, shall be a member of any athletic team representing the University.

6. Inasmuch as a member of an athletic team of this University is a representative student and enjoys special honor in thus representing the University, this privilege shall be withheld from any student whose scholastic standing is discreditable.

7. Any student who has participated as a player on a college team in either football or baseball for a period of four years shall thereafter be ineligible for such athletic contests of the University.

FRATERNITIES

Undergraduate students may join fraternities after registration in their Sophomore year. Fraternity men are not allowed to pledge Freshmen to join fraternities.

* The term college is hereby interpreted to mean any college named in Table 28 of the Report of the U. S. Commissioner of Education, which has not less than 150 male students of collegiate grade recorded in the catalogue of the institution in question as students of the college year preceding the applicant's entrance into the University.

PART FOUR

THE SCHOOL OF LAW
THE SCHOOL OF MEDICINE
THE SCHOOL OF PHARMACY
THE SUMMER SCHOOL FOR TEACHERS

THE SCHOOL OF LAW

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., PRESIDENT.
LUCIUS POLK MCGEHEE, A. B., DEAN.

LUCIUS POLK MCGEHEE, A. B., *Professor of Law.*
PATRICK HENRY WINSTON, *Professor of Law.*
ATWELL CAMPBELL MCINTOSH, A. M., *Professor of Law.*

The law school which developed into the Law School of the University was founded in 1843 at Chapel Hill as a private school by William H. Battle, then a judge of the Superior Court, later a Justice of the Supreme Court of the State. In 1845 Judge Battle was made Professor of Law in the University and it was provided that the degree of Bachelor of Laws should be conferred on those completing the prescribed two year course. From the records of the University, however, it seems that few degrees were actually conferred. For a long time the school maintained a certain independence of the University. The Professor of Law received no salary though he enjoyed the fees from his classes, and the students were not entirely subject to the discipline of the University.

In 1899 the school was completely incorporated into the University with the late Judge James C. MacRae, previously a Justice of the Supreme Court of North Carolina, as the first Dean of the Law School.

REQUIREMENTS FOR ADMISSION

For admission to the regular work of the school, students, unless they are "special students" as explained below, must have completed fourteen units of work. This amount of work is about equivalent to four years training in a high school. It is the same as the entrance requirement to the Freshman class in the academic department of the University, and will be found explained on page 31 of General Catalogue.

Students over twenty years of age who are not able to qualify as regular students may be admitted as "special students" upon presenting satisfactory evidence that they have received such training as will enable them to make profitable use of the opportunities offered in the school.

Seniors in the College will be admitted to take as electives courses selected, with the approval of the Dean, from the work of the law school.

The days for the registration of law students are the same as for the registration of students for the College. See the General Catalogue, page 120, or the University calendar.

Students who enter the School of Law for the Spring Term without having matriculated for the Fall Term, should present themselves for matriculation at the end of the Mid-Year examinations, as shown in the University Calendar in this Catalogue. Students, however, are advised to enter at the Fall Term, if it is possible.

DEGREE OF LL. B.

The degree of Bachelor of Laws (LL. B.) will be conferred upon students who have satisfactorily completed the entire courses prescribed for the Junior and Senior Classes of the Law School, and who satisfy the following conditions:

(a) Candidates must have completed academic courses equivalent to the work of the Freshman and Sophomore Classes in the University.

(b) Candidates must present satisfactory theses on legal subjects approved by the Dean.

(c) Candidates must have spent at least one year in residence at the University as students in the School of Law.

In the discretion of the Law Faculty, credit may be given to candidates for courses completed in other Schools of Law of recognized standing.

Plans have been considered for enlarging and lengthening the curriculum, and the Law Faculty has been authorized to formulate a three years' course of study for candidates for the degree of Bachelor of Laws. It is not considered wise to make this change at present, and it will be duly announced in the Catalogue.

DEGREES OF A. B. AND LL. B.

The University offers also the combined degrees of A. B. and LL. B. for the successful completion of the following requirements:

1. The courses in the College outlined below.
2. All academic work to be completed by the end of the last regular examination period of the Junior Year of the candidate.
3. The completion of all the courses in the School of Law prescribed for the LL. B. degree.
4. The presentation of a satisfactory thesis on a legal subject approved by the dean of the School of Law.

Prescribed academic work:

	FIRST YEAR	SECOND YEAR	THIRD YEAR
	Eng. 1 (3)	Eng. 2 (3)	Econ. 1 (3)
	Pub. Spkg. 1 (1)	Lat. 2 (3)	Philos. 1 (3)
	Math. 1 (4)	Hist. 3 (3)	Eng. (3)
	Lat. 1 (4)	Select one { Greek 2 (3)	Hist. (3)
Select one {	Greek 1 (4)	French 2 (3)	Elective (3)
	French 1 (3)	Ger. 2 (3)	
	Ger. 1 (3)	Select one { Math. 2 (3)	
	Hist. 1 3	Phys. 1 (3)	
		Chem. 1 (3)	

CERTIFICATES

Any student who has been in regular attendance in the School of Law and who has satisfactorily completed one or more courses is entitled to a certificate of attendance and standing.

NUMBER OF HOURS WORK REQUIRED OR PERMITTED

No student will be permitted to take more than eighteen hours of work weekly except with the special permission of the Faculty.

No student, unless he is also taking other courses in the University, will be permitted to take less than ten hours of work weekly, nor will a student taking less than ten hours weekly be considered as studying law within the rule of the Supreme Court requiring two years' study of law as a necessary preliminary of applicants for license to practice in North Carolina.

COURSES OF INSTRUCTION

The courses offered and the general order in which they are taken up are indicated in the following programme of studies which is arranged to cover two years, known as the Junior Year and the Senior Year. The method of instruction varies in the different courses. In some text-books and lectures with collateral reading of cases form the basis of work. In others the subject is developed directly from the study of selections of decided cases, and quizzes thereon.

Junior Year

FALL TERM.

ELEMENTARY LAW: a general outline of the field of legal studies; Clark's *Elementary Law*. *Two hours a week.* PROFESSOR WINSTON.

CONTRACTS: the general principles of contract; text to be announced; McIntosh's *Cases on Contract*. *Four hours a week.* PROFESSOR MCINTOSH.

PERSONS: Domestic relations, including husband and wife with marriage and divorce, parent and child, guardian and ward, infancy, insanity, drunkenness, and aliens; Woodruff's *Cases on Domestic Relations and the Law of Persons*, and selected cases. *Two hours a week.* Professor McGEHEE.

BAILMENTS: bailments, carriers, telegraphs, and telephones; Goddard's *Cases on Bailments and Carriers*. *Two hours a week.* Professor MCINTOSH.

AGENCY: Mechem's *Cases on Agency*. *Two hours a week.* Professor McGEHEE.

PROPERTY: a rapid outline of Personal Property, after which the study of Real Property is begun; lectures; Tiffany's *Modern Law of Real Property*. *Three hours a week.* Professor WINSTON.

SPRING TERM.

CRIMINAL LAW: May's *Criminal Law*, with statutes and selected cases. *Two hours a week.* Professor WINSTON.

TORTS: *Burdick's Torts*, *Mordecai and McIntosh's Cases on Remedies*. *Three hours a week*. Professor MCINTOSH.

SALES: *Erwin's Cases on Sales*. *Two hours a week*. Professor MCGEHEE.

NEGOTIABLE INSTRUMENTS: *Bigelow's Cases on Bills and Notes*, and *The Negotiable Instrument Law*. *Two hours a week*. Professor MCINTOSH.

QUASI-CONTRACTS: lectures and selected cases. *One hour a week*. Professor MCGEHEE.

PROPERTY: the law of Real Property as presented in *Tiffany's Modern Law of Real Property* is completed. *Three hours a week*. Professor WINSTON.

PLEADING AND PRACTICE: a study of remedies and pleading, which continues throughout the remainder of the student's course, is begun. This term is devoted to common law remedies and common law pleading. *Shipp and Daish's Cases on Common Law Pleading*; *Mordecai and McIntosh's Cases on Remedies*. *Two hours a week*. Professor MCGEHEE.

Senior Year

FALL TERM.

CONSTITUTIONAL LAW: *Boyd's Cases on Constitutional Law* and selected cases; lectures. *Four hours a week*. Professor MCGEHEE.

EQUITY: *Bispham's Principles of Equity*. *Three hours a week*. Professor WINSTON.

EVIDENCE: *Wigmore's Cases on Evidence*. *Three hours a week*. Professor MCINTOSH.

INSURANCE: *Richard's Cases on Insurance*. *Two hours a week*. Professor WINSTON.

FEDERAL COURTS: *The United States Courts Cases*; the study of the law and procedure in selected topics; *Hughes on Federal Jurisdiction*. *One hour a week*. Professor MCINTOSH.

PLEADING AND PRACTICE: after a study of equity pleading and procedure, pleading under American code system is begun; *North Carolina Code of Civil Procedure*; lectures. *Two hours a week.* Professor McGEHEE.

SPRING TERM.

PRIVATE CORPORATIONS: Clark on *Corporations*, with cases. *Three hours a week.* Professor McGEHEE.

***PUBLIC CORPORATIONS:** Elliot's *Public Corporations*, with cases. *Two hours a week.* Professor McINTOSH.

***BANKRUPTCY AND INSOLVENCY:** Assignment for Benefit of Creditors, Creditor's Remedies, and the Federal Bankruptcy Act; lectures, selected cases, the Federal bankruptcy act. *Two hours a week.* Professor McINTOSH.

PARTNERSHIP: Mechem's *Cases on Partnership*. *Two hours a week.* Professor WINSTON.

***SURETYSHIP:** Bunker's *Cases on Suretyship*. *One hour a week.* Professor WINSTON.

Alternates with Conflict of Laws. To be given in 1914.

WILLS AND ADMINISTRATION: Costigan's *Cases on Wills and Administration*. *Two hours a week.* Professor WINSTON.

***CONFLICT OF LAWS:** lectures and cases. *One hour a week.* Professor McINTOSH.

Alternates with Suretyship. To be omitted in 1914.

***ADMIRALTY:** Hughes on *Admiralty*. *One hour a week.* Professor McINTOSH.

PRACTICE AND PROCEDURE: Code pleading and practice; *North Carolina Code of Civil Procedure*; cases and lectures. *Two hours a week.* Professor McGEHEE.

* From the subjects marked with an asterisk the student may omit a course or courses amounting to two hours of work weekly, devoting the time gained to the preparation of his thesis.

SCHEDULE OF LAW RECITATIONS.
Senior Studies in CAPS; Junior in small type.

	8:30	9:45	10:40	11:35	12:30
Fall	Bailments	CONST. L.	FED. CTS.	Agency	EVIDENCE
MONDAY					
Spring	Bills & Notes	PRIV. CORP.	Plead., Etc.	Sales	BANKR'CY
Fall	PLEAD., Etc.	EQUITY	Property	Contracts	CONST. L.
TUESDAY					
Spring	PLEAD., Etc.	PART'SHIP	Property	Torts	MUN. CORP.
Fall	Bailments	CONST. L.	Persons	Contracts	INSURANCE
WEDN'SDAY					
Spring	Bills & Notes	PRIV. CORP.	Quasi-Contr.	BANKR'CY	WILLS, Etc.
Fall	Elem. Law	EQUITY	Property	Contracts	EVIDENCE
THURSDAY					
Spring	Crim. Law	SURETYS'P	Property	Torts	ADMIRALTY
Fall	PLEAD., Etc.	CONST. L.	Persons	Agency	INSURANCE
FRIDAY					
Spring	PLEAD., Etc.	PRIV. CORP.	Plead., Etc.	Sales	WILLS, Etc.
Fall	Elem. Law	EQUITY	Property	Contracts	EVIDENCE
SATURDAY					
Spring	Crim. Law	PART'SHIP	Property	Torts	MUN. CORP.

MOOT COURT

A Moot Court for practice in the preparation of pleadings, the argument of law points, and the actual conduct of trials is a feature of the school. It is conducted by the students with the assistance and co-operation of the Faculty. The court meets weekly, a member of the Faculty presiding.

ADDITIONAL OPPORTUNITIES OF UNIVERSITY LIFE

Students in the Law School will be admitted without additional expense to the courses given in the Departments of Economics and of History in the College of Liberal Arts and to the courses in Public Speaking and English, subject to the rules stated as to the number of hours which a student may take. A

student taking such a course must satisfy the entrance requirements for the course selected.

Students of the School may become members of the Dialectic and Philanthropic Literary Societies, where they may take part in or witness debates of a high order and train themselves in parliamentary law. As students of the University they enjoy all the privileges of the University library, the University gymnasium, and the organizations of the University generally, literary, social, and athletic.

THE LAW LIBRARY

The law library is housed in the Law Building and contains about 4,000 volumes. The annual revenue of a fund raised by the former students and friends of the late Professor John Manning, LL. D., who presided over the School for many years, is devoted to the purchase of books for the library. Free access to the library is allowed to the students of the School, though they are not permitted to take the books from the building.

PRIZES

THE HENRY R. BRYAN PRIZE: Mr. Shepard Bryan of the Atlanta Bar offers annually, in honor of his father, the Honorable Henry R. Bryan of Newbern, N. C., a set of Cooley's Insurance Briefs to that member of the Senior Law Class who shall submit the best thesis upon an approved legal subject.

CALLAGAN AND COMPANY LAW PUBLISHERS, CHICAGO, PRIZE: A set of Andrew's American Law is offered by the publishers to that member of the Senior Class who obtains the best general average in his work for the year.

FEES AND EXPENSES

Tuition for Fall and Spring terms, each..	\$35.00
Registration fees.....	12.50

There are no scholarships in the School. Good board is furnished at Commons Hall for \$10 a month and at the University Inn for \$15 a month. In the village board may be secured for from \$8 to \$15, or with rooms, from \$10 to \$20 a month.

The rent of unfurnished rooms in the dormitories ranges from seventy-five cents to \$2.75 a month, for each occupant; and for each room a charge of one dollar a month is made for electric light and one dollar a month for heat.

ADMISSION TO THE BAR OF NORTH CAROLINA

Admission to the bar of North Carolina is under the direct control of the Supreme Court of the State. The rules of the Court as to the examination and licensing of applicants are given on page 141. Where circumstances and means permit, the reading should be done at a regular school of law. But the requirements of the rule may be satisfied by private reading. Students who have read law for a year privately or in a law office may, by attending the school for one year, beginning either in September or January, and by attending a term of the summer school, have an opportunity to study or review the course required by the Supreme Court of applicants for license.

To do this, it will be necessary for such students to select, with the approval of the Faculty, subjects from the regular courses of both the Junior and Senior years. Such a course is not advised or approved except in cases where limited means render it a regrettable necessity. Two years spent in systematic study under competent instructors is a minimum period for mastering even the elements of so wide, complicated, and technical a subject as the law. The student should remember that he is preparing for his life-work, and only detriment to that life-work can in general result from a feverish anxiety to cut short the period of preparation and to abridge the studies which experience has marked out for the acquisition of the necessary qualifications.

THE SUMMER LAW SCHOOL

A session of the School of Law is maintained during each summer for the purpose of providing:

- 1st. A course for those who wish to begin the study of law.
- 2nd. A thorough review of the course prescribed by the Supreme Court of North Carolina for application for license.

3rd. An opportunity for instruction for men who cannot become resident students during the scholastic year.

4th. An opportunity for members of the Bar to review certain branches of law.

SESSION

The term for the summer of 1913 begins June 18 and ends August 28, three days prior to the examination before the Supreme Court for admission to the Bar of North Carolina.

LECTURES AND RECITATIONS

At this session two daily lectures and recitations of one hour and a half each will be held by two professors of the Law Faculty. In addition there will be frequent quizzes. The two courses offered are intended to cover the requirements for reading prescribed, given below, in the rules of the Supreme Court of North Carolina. The instruction is conducted by means of text-books, lectures, leading cases, quizzes, and moot court.

An outline of the work and of the time assigned to the various subjects is approximately as follows:

Domestic Relations (6 lectures); Contracts (18 lectures); Torts (12 lectures); Corporations (6 lectures); Evidence (6 lectures); Pleading and the Code (12 lectures); Criminal Law (8 lectures); Personal Property (6 lectures); Real Property (20 lectures); Executors and Administrators (6 lectures); Equity (9 lectures); Constitutional Law (9 lectures); Legal Ethics (2 lectures).

The text-books used will be, as far as possible, those used at the regular session of the school, but any standard text-book on any of these subjects will be accepted.

EXAMINATIONS

No entrance examination is required; but each student must satisfy the faculty that he has sufficient general education to enable him to take the course with profit to himself. Examinations are required as each subject is completed, and at the end of the term certificates to that effect are issued to such students

as have passed with credit all examinations in both courses. These certificates will not entitle the recipients to any credit in the work of the regular school.

FEES AND EXPENSES

Tuition for term.....	\$30.00
Registration and Incidental Fees.....	5.00

The above mentioned fees cover privileges of the University library, gymnasium, and baths. Board in the village, with room, will cost from \$10 to \$20 a month; without room, from \$10 to \$15.

For further information address the President of the University or the Dean of the School of Law, Chapel Hill, N. C.

RULES OF THE SUPREME COURT OF NORTH CAROLINA AS TO ADMISSION TO THE BAR.

1. Applicants for license to practice law will be examined on the first Monday in February and the last Monday in August of each year, and at no other time. All examinations will be in writing.

2. Each applicant must have attained the age of twenty-one years or will arrive at that age before the time for the next examination, and must have studied: Ewell's Essentials, 3 vols.; Clark on Corporations; Schouler on Executors; Bispham's Equity; Clark's Code of Civil Procedure; Volume 1, Revisal (1905) of North Carolina; Constitution of North Carolina; Constitution of the United States; Creasy's English Constitution; Sharswood's Legal Ethics; Shepard's Constitutional Text-Book; Cooley's Principles of Constitutional Law. *Or their equivalents.*

Each applicant must have read law for two years at least, and file a certificate of good moral character, signed by two members of the bar who are practicing attorneys of this Court, and also a certificate of a Dean of a Law School, or of a member of the bar of this Court that the applicant has read law under his instruction or to his knowledge or satisfaction, for two years, and upon examination by said instructor has been found competent and proficient in said course. Such certificate, while indispensable, will, of course, not be conclusive evidence of proficiency. An applicant from another state can file a certificate of good moral character signed by any State officer of the state from which he comes. * * * *

3. Each applicant shall deposit with the clerk the sum of \$23.50 for the license and the clerk's fee before he shall be examined. * * *

THE SCHOOL OF MEDICINE

FACULTY

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., PRESIDENT.
ISAAC HALL MANNING, M. D., DEAN.

CHARLES STAPLES MANGUM, A. B., M. D., *Professor of Anatomy.*

ISAAC HALL MANNING, M. D., *Professor of Physiology.*

WILLIAM DEBERNIERE MACNIDER, M. D., *Professor of Pharmacology.*

WADE HAMPTON BROWN, B. S., M. D., *Professor of Pathology.*

ROBERT BAKER LAWSON, M. D., *Associate Professor of Anatomy.*

LOUIS DEKEYSER BELDEN, S. B., *Assistant in Physiological Chemistry.*

GRADY RUDISILL ROBERTS, *Assistant in Anatomy.*

JULIAN NOLLEY TOLAR, *Assistant in Histology.*

JAMES STEVEN SIMMONS, *Assistant in Histology.*

ADOLPHUS BART GREENWOOD, A. B., *Assistant in Pharmacology.*

HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*

EDWARD VERNON HOWELL, A. B., Ph. G., *Professor of Pharmacy.*

CHARLES HOLMES HERTY, Ph. D., *Smith Professor of General and Industrial Chemistry.*

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

ALVIN SAWYER WHEELER, Ph. D., *Professor of Organic Chemistry.*

JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*

CHARLES SCOTT VENABLE, A. M., *Instructor in Chemistry.*

JOHN GROVER BEARD, Ph. G., *Instructor in Pharmacy.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

WESLEY CRITZ GEORGE, A. M., *Instructor in Zoology.*

WILLIAM BATTLE COBB, A. B., *Assistant in Botany.*

PAUL ROBY BRYAN, *Assistant in Chemistry.*
CARNIE BLAKE CARTER, *Assistant in Chemistry.*
FRANK DAVIES CONROY, *Assistant in Chemistry.*
CLARENCE BALLEW HOKE, *Assistant in Chemistry.*
JACKSON TOWNSEND, *Assistant in Chemistry.*
JAMES BLAINE SCARBOROUGH, *Assistant in Physics.*
ALLYN RAYMOND BROWNSON, *Assistant in Zoology.*

HISTORICAL SKETCH

The School of Medicine was established in 1879 and Dr. Thomas W. Harris was chosen to direct its work. A course of two years was offered in theoretical and practical medicine, but owing to the limited facilities this plan was not found practicable and was abandoned in 1886. In 1890, however, the School was re-opened and, under the direction of Dr. R. H. Whitehead, a course of one year, embracing only the elementary subjects—Anatomy, Chemistry, Physics, Physiology, etc.—was offered. As the requirements leading to the degree of Doctor of Medicine were increased by the leading medical colleges, the course was extended to embrace the first two years of the four year curriculum. In 1902 a Clinical Department was established at Raleigh, but since the funds for a proper equipment could not be provided, this was abandoned in 1909. In 1898 the School was admitted to membership in the Association of American Medical Colleges, and in 1901 was incorporated as an integral part of the University, on the same footing as the Graduate and the other professional schools.

COURSES OFFERED

The following courses are offered:

1. A Preparatory or Pre-medical Course: a course of one year of college work in which special attention is given to Chemistry, Physics, and Zoology. This is the minimum requirement for admission to the Medical School.
2. A Combined Course Leading to the Degree of Bachelor of Science: This consists of a prescribed college course of two years and the medical course of two

years. On completing this four year course the School of Applied Science offers the degree of Bachelor of Science. The student is therefore able to obtain the scientific degree and the degree of Doctor of Medicine in six years.

3. The Medical Course: The American Medical Association, the Association of American Medical Colleges, and other medical organizations recommend for the degree of Doctor of Medicine a graded course of four years in a medical school. They also suggest an arrangement of subjects in which the so-called laboratory subjects are to be given in the first two and the clinical subjects in the last two years. The medical course covers the subjects of the first two years. On completing the course a certificate is given which is accepted in full by most of the medical schools.

THE CURRICULUM

Preparatory or Premedical Course

English, 1, 3 hrs.	Chemistry 1, 3 hrs.
Zoology 1, 3 hrs.	Chemistry 3A, 1½ hrs.
Physics A, 3 hrs.	Chemistry 4A, 1 hr.

The Combined Course: College Studies

FIRST YEAR

	English 1, 3 hrs.
	Mathematics 1, 4 hrs.
	Chemistry 1, 3 hrs.
	Botany 1, 3 hrs.
Select	German 1, 3 hrs.
one	French 1, 3 hrs.
	Latin 1, 4 hrs.

SECOND YEAR

	English 2, 3 hrs.
	Physics 1, 3 hrs.
	Zoology 1, 3 hrs.
	Chemistry 3A, 1½ hrs.
	Chemistry 4A, 1 hr.
Select	German 1 or 2, 3 hrs.
one	French 1 or 2, 3 hrs.
one	Latin 1, 4 hrs. or 2, 3 hrs.
one	Drawing 1, 2 hrs.
Select	History 1, 3 hrs.

In the College of Liberal Arts two hours of laboratory work are counted as one hour. In the premedical course and in the combined course this system is followed. In the medical curriculum two hours of laboratory work are counted as two hours.

The Medical Course**FIRST YEAR.**

Organic Chemistry (Chem.10) : *Six hours a week until April 1.*
 Toxicology (Chem. 9) : *Six hours a week from April 1 to the end of the term.*

COMPARATIVE ANATOMY (Zoology 2A).—*Six hours a week, fall term.*

HUMAN ANATOMY.—*Ten hours a week, fall and spring terms.*

HISTOLOGY.—*Nine hours a week, fall term.*

EMBRYOLOGY.—*Six hours a week, spring term.*

PHARMACY.—*Six hours a week, spring term.*

SECOND YEAR.

HUMAN ANATOMY.—*Nine hours a week, fall term.*

NEURO-ANATOMY.—*Six hours a week, fall term.*

BACTERIOLOGY.—*Nine hours a week, fall term.*

PHYSIOLOGY.—*Five hours a week, fall term; ten hours a week, spring term.*

PHYSIOLOGICAL CHEMISTRY.—*Six hours a week, fall term.*

PATHOLOGY.—*Twelve hours a week, spring term.*

PHARMACOLOGY.—*Ten hours a week, spring term.*

MINOR SURGERY—Normal Physical Diagnosis.—*Four hours a week, spring term.*

SUMMARY OF FIRST AND SECOND YEARS.

<i>Subjects</i>	<i>Hours</i>
Chemistry	288
Anatomy	828
Physiology	255
Bacteriology	144
Pathology	200
Pharmacology	167
Pharmacy	90
Minor Surgery and Physical Diagnosis....	60
Total	2032 hours.

ADMISSION

Candidates for admission and students already members of the School should present themselves to the President and Dean of the School for registration on *Monday, Tuesday or Wednesday, September 8, 9, or 10, 1913*, and *Friday or Saturday, January 2, or 3, 1914*.

ENTRANCE REQUIREMENTS

The requirements for admission to the premedical and the combined courses are the same as for the College of Liberal Arts. (See page 31.)

The requirements for admission into the Medical School are the satisfactory completion of one year in the University or certificates of its equivalent from an approved college. Students may be admitted to the second year of the Medical course upon furnishing certificates of having completed the first year in an approved Medical school, or upon passing an examination upon the subjects studied in the first year. An examination will not be allowed until the candidate furnishes a certificate of having attended eighty per cent. of the hours required.

EXAMINATIONS

Regular examinations are held during the two regular examination periods of the College of Liberal Arts. Special examinations will be given for the purpose of making up deficiencies during Registration Week. A fee of \$5.00 will be charged each applicant for an examination at any other time. An examination will not be allowed if the student is charged with ten per cent. of unexcused absences or with absences amounting to twenty per cent. of the total number of hours assigned to the subject.

CERTIFICATES

A certificate will be granted to those who complete the premedical and the medical courses. If a student fails on any one of the required subjects, a statement indicating the subjects completed will be given.

EXPENSES

The following are the charges a term payable at the beginning of each term in September and January respectively:

Tuition	\$35.00
Fee for matriculation (registration, library, infirmery, etc.)	12.50
Total	<hr/> \$47.50

In addition the following fees will be charged for laboratory courses a term:

Physiological Chemistry, \$5.00; Chemistry 10, \$5.00; Zoology 1, \$3.00; Zoology 2, \$5.00; Experimental Physiology, \$5.00; Pharmacology, \$5.00; Pharmacy, \$5.00; Bacteriology, \$2.50; Pathology, \$2.50; for the use of the microscope, \$1.00.

The laboratory fees are divided approximately equally among the four terms. The total charge is between \$58.00 and \$60.00 a term.

The following are the charges a term for students pursuing the premedical course:

Tuition	\$30.00
Matriculation, etc.	12.50
Laboratories	5.00
Total	<hr/> \$47.50

Good board is furnished at Commons Hall for \$10 a month and at the University Inn for \$15 a month. The rent of unfurnished rooms in the dormitories ranges from seventy-five cents to \$2.75 a month for each occupant. For each room a charge of \$2.00 a month is made for electric light and heat.

PRIZES AND SCHOLARSHIPS

THE WOOD SCHOLARSHIP. (Established in 1895.) Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her husband, the late Dr. Thomas Fanning Wood, a scholarship, covering the tuition and fees.

THE GENERAL PLAN OF INSTRUCTION

In the arrangement and conduct of the courses an effort is made to follow modern ideals in medical education. A year of college training in Chemistry, Physics, and Zoology is insisted upon as the minimum preparation for the study of medicine. In order, however, to encourage a more thorough preparation, the degree of Bachelor of Science is offered to those students who complete a prescribed college course of two years and the two years of the medical course. In offering this degree the value of a properly directed college course of four years is not minimized, but on the contrary is earnestly recommended.

In the arrangement of the course of studies the attempt is made to have the subjects follow in natural sequence. Elementary courses in General Chemistry, Physics, and Zoology having been completed in the pre-medical year, more advanced courses in these subjects are pursued. In the first year Organic Chemistry, and Comparative Anatomy, with special reference to the requirements of the medical student, Gross Human Anatomy, Histology, Embryology, and an elementary course in Pharmacy are studied. In the second year Human Anatomy, Physiological Chemistry, and Bacteriology are completed in the first half; Materia Medica and Pharmacology, Pathology, and Normal Physical Diagnosis in the second half. Physiology is begun and completed in the second year. At the expiration of the two years the student will have completed the fundamental branches of medicine, and will be prepared to enter upon the study of the more practical subjects.

In the plan of instruction the laboratory method, supplemented with systematic lectures and demonstrations, is pursued. The lectures and the laboratory courses are given contemporaneously as far as possible, for it is believed that the student, in this way, not only acquires technical skill, but a more thorough knowledge of the subject.

When advisable the classes are divided into small sections so that the work of the student is under the direct supervision and close observation of the instructor. Frequent oral and written quizzes and a final examination are required in each subject, and in the laboratory courses each student is required to record the observations in a note book, which must be sub-

mitted from time to time to the instructor and is held for a part of the final grade.

Regular attendance upon all classes is required of each student. A student who is absent twenty per cent. of the total number of hours assigned each subject, or is charged with ten percent. of unexcused absences, is denied the privilege of an examination in the subject in which the absences occur.

EQUIPMENT

At a meeting of the Executive Committee of the Board of Trustees held at Raleigh in March, 1911, an appropriation of \$50,000 was made for the erection and equipment of a new medical building. This building, which bears the name of Caldwell Hall, is now completed.

The new building is located on the south side of Cameron avenue opposite Davie Hall, facing north. The front wall of the main building is on a line with the rear of the Carr building. This location secures the north light in all of the laboratories used for microscopic work.

To the north is the main building, 117x64, and adjoining this, to the south, is a wing, 63x36, each containing a basement and two floors. The first floor of the main building is bisected from north to south by an entrance hall 14 feet wide, and from east to west by a corridor 8 feet wide, dividing the floor space into four equal parts. Each part is subdivided into one large class laboratory, 34x27, and two private laboratories, 14x12½. The class laboratories lie next to the entrance hall. Those on the north side will be used for microscopic work in Histology and Embryology. They are lighted from five large windows on the north side. On the south side are the laboratories for Physiological Chemistry and Experimental Physiology.

The private laboratories are located on the farther side of the class laboratories. The corner laboratories, with two large double windows, will be occupied by the instructors. The private laboratory adjoining the corridor will be occupied by the assistants. The office of the Dean is in one of the private laboratories on this floor and may be entered from the west end of the corridor.

The second floor is a duplicate of the first floor with the exception that the space above the entrance hall is enclosed and is used for the Departmental Library. On the north side are the Bacteriological and Pathological laboratories, and on the south side the Pharmacological laboratory and a lecture room. The laboratories here have the same arrangement as those on the first floor. Nearly opposite the Pathological laboratory is the Pathological Museum.

At the ends of the corridor on the first and second floors are small fire proof rooms which will be used for incubators, thermostats, and other purposes requiring the continuous use of oil or gas lamps.

In the basement of the main building provision is made for the care of animals. The floors of the several apartments are covered with cement and are inclined to a common drain pipe. The rooms are well ventilated, lighted, and heated, and are provided with all necessary facilities for proper sanitation.

On the first floor of the wing adjoining the main building is the main lecture hall, and in the rear of this is the amphitheatre for anatomical demonstrations. In the rear of the amphitheatre is the Anatomical Museum.

On the second floor of the wing are the anatomical laboratories. In the centre, and occupying a large part of the floor space, is the main dissecting hall, which has a cement floor and is lighted by six large windows and two skylights. On either side of a short corridor at the front are two private laboratories for special dissections, and at the end of the corridor the two laboratories for the instructors. The latter are entered from the upper hall of the main building. In the rear of the main dissecting hall are the lavatory and locker rooms.

The basement of the wing is divided by a solid brick wall from east to west. On the north of this wall are the store rooms, a photographic room, a room for the refrigerating and gas plants; on the south side are the storage tanks for cadavers, the incinerator, and other arrangements for the care of anatomical material. In the rear end of the basement is an entrance hall containing the elevator and the stairs leading to the amphitheatre and the dissecting hall. The building is heated from the central heating plant and abundantly supplied

with water and electric light. The dissecting hall is supplied with hot and cold water.

The laboratories are well equipped with apparatus for the use of the students and the research work of the teachers. Animals are available in adequate numbers for all proper experimental work.

The Departmental Library contains approximately three thousand volumes. The more important periodicals pertaining especially to the subjects offered in the course are received regularly and kept on file.

The medical students have free access to the general Library, the Chemical, Physical, and Biological laboratories, which are described in Part Five of the general catalogue.

COURSES OF INSTRUCTION

Chemistry

1. General Descriptive Chemistry: Premedical: the elements are studied in a systematic manner; the laws governing their combination and the compounds resulting are considered with appropriate reference to their occurrence and relationships to medicine. The latter part of the course is taken up with organic chemistry. Texts: McPherson's *Elementary Chemistry*; Rensen's *Organic Chemistry*. Both terms, three hours. Professor HERTY and Messrs. VENABLE and CARTER.
Laboratory fee, \$1.25 a term.
- 3A. Qualitative Analysis: Premedical: laboratory work with lectures; practice is given in the analysis of known and unknown mixtures. Required. *Fall term, three hours*. Professor WHEELER and Mr. HOKE.
Laboratory fee, \$7.50.
- 4A. Quantitative Analysis: Premedical: a brief course in gravimetric methods followed by a more extended course in volumetric methods. Required. *Spring term, two hours*. Associate Professor BELL.
Laboratory fee, \$4.00.

5. Organic Chemistry: lectures and laboratory work. Prerequisite, Chemistry 1 and 3. Elective. *Both terms, three hours.* Professor WHEELER.
Laboratory fee, \$4.00 a term.
- 5A. Organic Chemistry: laboratory work only. This course is designed to give further practice in dealing with organic compounds. Elective. Prerequisite, Chemistry 5 or 10. *Both terms, two hours.* Professor WHEELER.
Laboratory fee, \$6.00 a term.
9. Toxicology: laboratory work; the chemical behavior of poisons and their separation is studied in the laboratory. Text: Autenrieth and Warren's *Detection of Poisons*. Required. *Spring term after April 1, three hours.* Professor WHEELER and Mr. CONROY.
Laboratory fee, \$1.50.
10. Organic Chemistry: lectures and laboratory work.
Part I. A general survey of Organic Chemistry and the synthetic preparation of compounds of special interest to medical men.

Part II. A more detailed study of the fats, carbohydrates, and proteins, including laboratory work. Text Haskin's and Macleod's *Organic Chemistry*. *Fall term and Spring term to April, three hours.* Professor WHEELER and Mr. CONROY.
Laboratory fee, \$5.00 a term, including Chemistry 9.

Physics

- A. Elementary Physics: the fundamental facts of Physics are studied with some special attention to heat and electricity. Text-book, lectures, and laboratory work. *Both terms, three hours.* Mr. CHRISLER.
Certificates of Physics work done elsewhere than in a college of approved standing will not be accepted in lieu of this course.
4. Electricity and Magnetism: a study of the phenomena of electricity and magnetism, and their application in modern life, including the use of the X-rays, the rays of Radium and other applications in Electrotherapeu-

tics. Laboratory work required. Elective. *Both terms, two hours.* Professor PATTERSON.
Laboratory fee, \$2.00 a term.

Zoology

1. Elements of Zoology; premedical; an introductory course giving an outline of the classification and structure of animals, fundamentals of histology, embryology, and physiology, with some consideration of biological theories; lectures with laboratory work. Text: Parker. Professor WILSON and Mr. GEORGE.

Laboratory fee, \$3.00 a term.

2. Comparative Anatomy of Vertebrates (first half); medical; dissection of vertebrate types: ascidian, amphioxus, cyclostome, fish, bird, mammal. Text: Kingsley. Professor WILSON and Mr. BROWNSON.

Laboratory fee, \$5.00.

Botany

1. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. Elective in the first year. Professor COKER and Mr. COBB.

Histology

1. General Histology and Organology. This course includes (a) the study of the fundamental tissues followed by (b) the study of the microscopic structure of the various organs, and (c) the fundamentals of histological technique. Fall term. Lectures, recitations, and laboratory. *Nine hours a week.* Professor BROWN, Messrs. TOLAR and SIMMONS.
2. Advanced Histology: To those who have completed course 1 or its equivalent, opportunity will be offered to pursue advanced work or original investigation in this subject. Arrangements for this course may be made with Professor BROWN.

Course 1 is required of all medical students. Course 2 is elective.

Anatomy

Professor MANGUM, Associate Professor LAWSON, and Mr. ROBERTS.

The method of instruction is one of dissection and demonstration supplemented by lectures. Each student is required to dissect one-half of the body under the constant supervision of an instructor, who examines him daily upon the work done. Frequent practical examinations are held upon which stress is laid in order to enforce proper study of the cadaver.

1. In the First Year the lectures and demonstrations proceed by systems. The bones, the articulations, the descriptive anatomy and relations of the viscera are demonstrated to each student. During this year the student dissects one-fourth of the body.
2. In the Second Year the student finishes the dissection of the body and especial stress is laid upon topographical anatomy and the relations of anatomy to surgery. A final examination is held upon the entire subject of gross anatomy.
3. Neuro-Anatomy: special laboratory study of the gross and microscopic anatomy of the cord and encephalon Text: Cunningham, Gray, or Morris; Cunningham's *Manual of Practical Anatomy*; Whitehead's *Anatomy of the Brain*.
4. Vertebrate Embryology: The lectures embrace the phenomena of cell division, ovulation, and impregnation, and the development of the human body to the end of the foetal stage. In the laboratory the student verifies the facts by the study of organogeny in the chick and in the pig and the foetal membranes in mammals. Texts: Bailey and Miller; Marshall; Minot's *Laboratory Text*.

Physiology

Professor MANNING and Mr. BELDEN.

The course in Physiology is given in three parts, as follows:

1. **General Physiology:** a lecture course of five hours a week extending through the year; a brief account of cell physiology is followed by a detailed discussion of the facts and theories of Human Physiology; attention is called to the application of physiology in medical practice as far as possible. Text: Howell.
2. **Physiological Chemistry:** a laboratory course of six hours a week during the fall term. The purely chemical aspects of Bio-chemistry are considered in the course in organic chemistry (Chem. 10) given in the first year. In the course in Physiological Chemistry a practical application of the principles of Bio-chemistry is made in the study of Human Physiology. The chemistry of digestion, of the secretions, of blood, and of the urine is studied in detail, qualitatively and quantitatively, and such tissues are examined as will afford evidence of the course of metabolic processes. Laboratory Notes. References: Hammarsten, Hawk.
3. **Experimental Physiology:** a laboratory course of five hours a week during the spring term. In this course the student studies the heart and neuro-muscular systems on the turtle and the frog; the circulatory, respiratory, and glandular systems on the mammal. In the former the class is divided into groups of two and in the latter into groups of four. Each group is supplied with mimeographed directions for the performance of each experiment and a full equipment of apparatus, and each student is required to keep a record of the observations, including tracings. Reference: Stewart, Porter, Hill, etc.

Materia Medica and Pharmacology

Professor MACNIDER and Mr. GREENWOOD.

1. **Materia Medica:** the general consideration of this subject is given in the first year of the medical curriculum. In the second year the important drugs are studied in groups, the classification depending upon their physiological action. Emphasis is given to the most import-

ant drugs, and their physiological action is studied in detail.

2. Prescription Writing: as early as possible in the course the student's attention is directed to the logical application of various drugs to the relief of morbid conditions. Hypothetical conditions are discussed, and each student writes one or more prescriptions and gives his reasons for the use of the various drugs he employs. The prescriptions are discussed and criticised by the students and the instructor.
3. Pharmacodynamics: this part of the general course in Pharmacology consists in a careful and accurate study of the action of practically all of the more important drugs on the lower animals. For this work, the higher animals, such as the cat and dog, are chiefly used. The class is divided into groups of two or four, and the experimental work is conducted by the students. Each student is required to hand in to the instructor, at the completion of the course, a laboratory note book containing a detailed account of each experiment, an explanation of the results obtained, and the tracings made during the experiments. Oral and written recitations are frequently held. Text: Cushny. *Pharmacology and Therapeutics*. Reference: Sollman.
4. Advanced Pharmacology: two types of courses will be offered: (a) an experimental study of the action of various drugs upon the normal animal; (b) an experimental study of the action of various drugs and other agents upon the pathological animal.

Bacteriology

Professor MACNIDER and Mr. GREENWOOD.

The student learns by practical experience the methods of cultivating, staining, and identifying the principal pathogenic bacteria. A few non-pathogenic and saprophytic forms are studied. The pathological significance of the various forms is explained by lectures, and the pathogenicity of some of the forms is determined by

inoculation experiments performed by the class. At intervals during the course unknown organisms are given for identification. In addition to this, each student is required to isolate from the air, water, fecal matter, or pus two organisms and determine their species. The latter part of the course is devoted to the bacteriological study of milk and water. Text: Jordan. Reference: Park and McFarland.

Minor Surgery and Physical Diagnosis

Associate Professor LAWSON.

The class practices the application of bandages, and learns the modern method of dressings wounds. A short course in Physical Diagnosis is given. Text: Davis on Bandaging.

Pharmacy

Professor HOWELL.

The course in Pharmacy will consist in laboratory work supplemented by lectures. The student will have an opportunity to study the crude drugs and their official prescriptions and doses, and to familiarize himself with pharmaceutical methods in the preparation of official drugs, in writing and compounding prescriptions.

Hygiene

Professor MANNING.

A short course in the elementary principles of Hygiene and Sanitation.

Pathology

Professor BROWN, Messrs. TOLAR and SIMMONS.

1. General and Special Pathology: this course embraces a thorough consideration of general pathological processes from their chemical and physiological as well as their morphological aspects. The subject of Special

Pathology is considered upon the same broad basis. The course includes a series of lectures and recitations combined with laboratory work and demonstrations of gross and microscopical preparations. Second term. Lectures and recitations, *four hours a week*; laboratory, *nine hours a week*. Prerequisite, Histology 1.

2. Advanced Pathology: opportunity for advanced work in pathology or for original investigation will be offered to a limited number of students upon the presentation of satisfactory evidence of ability to pursue work of this character.

Course 1 is required of all medical students. Course 2 may be elected by special arrangement with Professor BROWN.

Advanced Courses for Practicing Physicians

Opportunity for advanced work or for original investigations is offered in all of the laboratories to practicing physicians by special arrangement with the instructors.

SCHEDULE OF RECITATIONS

FIRST YEAR							SECOND YEAR						
HOUR TERM	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Fall	Histology	Histology	Histology	Histology	Histology	Histology	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	
3:30							Pharma-cology	Pharma-cology	Pharma-cology	Pharma-cology			
Spring	Embryology	Anatomy		Anatomy	Embryology	Anatomy					Pharma-cology	Pathology	
Fall	Histology	Histology	Histology	Histology	Histology	Histology	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	
9:45													
Spring	Embryology	Anatomy	Pharmacy	Anatomy	Embryology	Anatomy	Physiology	Physiology	Physiology	Physiology	Physiology	Pathology	
Fall		Histology		Histology	Chem. 10	Histology	Anatomy 2	Bacteriology	Anatomy 2	Bacteriology	Anatomy 2	Bacteriology	
10:40													
Spring		Anatomy		Anatomy	Chem. 10	Anatomy	Pharma-cology	Pathology	Pathology	Pathology	Physiology	Pathology	
Fall	Anatomy	Anatomy	Anatomy	Anatomy	Chem. 10	Anatomy		Bacteriology				Bacteriology	
11:35													
Spring		Anatomy		Anatomy	Chem. 10	Anatomy	Pharma-cology	Pathology	Pathology	Pathology	Physiology	Pathology	
Fall	Anatomy	Anatomy	Anatomy	Anatomy			Physiology	Physiology	Physiology	Physiology	Physiology		
12:30													
Spring		Anatomy		Anatomy			Pharma-cology	Pathology	Pathology	Pathology	Physiology	Pathology	
Fall	Chem. 10	Zoology 2	Chem. 10	Zoology 2	Zoology 2	Anatomy	Physiol-og. Chem.	Bacteriology	Physiol-og. Chem.	Bacteriology	Physiol-og. Chem.		
2:30													
3:30							Pharma-cology	Ph. Diagnosis	Hygiene	Ph. Diagnosis	Minor Surg.	Physiology	
Spring	Chem. 10	Pharmacy	Chem. 10	Pharmacy			Pharma-cology	Minor Surg.					

SCHOOL OF PHARMACY

FACULTY

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., PRESIDENT.
EDWARD VERNON HOWELL, A. B., Ph. G., DEAN.

EDWARD VERNON HOWELL, A. B., Ph. G., *Professor of Pharmacy.*

JOHN GROVER BEARD, Ph. G., *Instructor in Pharmacy.*

HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*

WILLIAM DEBERNIERE MACNIDER, M. D., *Professor of Pharmacology.*

ISAAC HALL MANNING, M. D., *Professor of Physiology.*

CHARLES HOLMES HERTY, Ph. D., *Smith Professor of General and Industrial Chemistry.*

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*

ALVIN SAWYER WHEELER, Ph. D., *Professor of Organic Chemistry.*

JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*

CHARLES SCOTT VENABLE, A. M., *Instructor in Chemistry.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

WESLEY CRITZ GEORGE, A. M., *Instructor in Zoology.*

WILLIAM BATTLE COBB, A. B., *Assistant in Botany.*

CARNIE BLAKE CARTER, *Assistant in Chemistry.*

FRANK DAVIES CONROY, *Assistant in Chemistry.*

CLARENCE BALLEW HOKE, *Assistant in Chemistry.*

JACKSON TOWNSEND, *Assistant in Chemistry.*

JAMES BLAINE SCARBOROUGH, *Assistant in Physics.*

ALLYN RAYMOND BROWNSON, *Assistant in Zoology.*

FOUNDATION

The School of Pharmacy was founded in 1897 and was opened for students in September of that year. Its location at the seat of the University assures to the students the most modern scientific instruction with all the laboratory facilities of the undergraduate department, as well as the courses of instruction in the allied branches. These opportunities will meet the requirements of a large number of students who were compelled heretofore to obtain their pharmaceutical education in other states. Briefly stated, the advantages are as follows:

1. Thorough, careful, *individual* training.
2. The practical experience derived from active work in the laboratories.
3. Intimate association with the other departments of the University, to all of which the student of pharmacy has access, and the daily contact with students pursuing various branches of learning.
4. The use of the large library and reading room and the well equipped gymnasium.
5. The comparatively small cost at which a two years' course may be obtained.
6. The length of the course, which consists of two sessions of nine months each,—nearly a fourth longer than in many of the colleges of pharmacy.

The success of the students of this school in their examinations before the State boards has been very gratifying. Students of this School have been applicants before the State boards of Maryland, Pennsylvania, and North Carolina. None of the graduates of this School applying for license before the State boards has failed to pass the examination.

ADMISSION

Candidates for admission into the School of Pharmacy should present themselves on the same days and at the same hours with candidates for admission into the college. For the next academic year these days will be *Monday, Tuesday, or Wednesday, September 8, 9, or 10, 1913, and Friday or Satur-*

day, January 2 or 3, 1914. The session of the School of Pharmacy is of the same length as the College year, beginning *September 11, 1913*, and ending *June 3, 1914*.

Candidates for the degree of Ph. G. must be, on entering, at least 17 years old, and must have completed a high school course of study. They may however enter the first year course without those prerequisites.

The members of the School of Pharmacy enjoy all the privileges extended to other students in the University.

EXPENSES

The charges for each term are payable at the beginning of the term. They are as follows:

Tuition	\$30.00
Registration and incidental fees	12.50

There are additional fees as follows:

FIRST YEAR.

Chemistry 1 (each term)	\$1.25
Physics A (each term)	1.00

SECOND YEAR.

Chemistry 3 (each term)	\$5.00
Chemistry 9 (April and May)	1.50

The students of Pharmacy are entitled to the use of the gymnasium, the library, and reading room, and, in case of sickness, to medical attention and the use of the infirmary.

Good board is furnished at Commons Hall for \$10.00 a month and at the University Inn for \$15.00 a month. The rent of unfurnished rooms ranges from 75 cents to \$2.75 a month. For each room is made a charge of \$2.00 a month for electric light and heating.

PRIZES

THE BRADHAM PRIZE, offered by Mr. C. D. Bradham, of New Bern, N. C., will be given to the student making the highest general average during the two years of study.

Prizes will be given:

1. For the best thesis.
2. For the best collection of native medicinal herbs.
3. For the best exhibit of chemical salts made by a second year student.
4. For the best work in the recognition of materia medica specimens.
5. To the student recognizing the largest number of pharmaceutical preparations.
6. To the student making the best general average during the first year of study.

EXAMINATIONS

Final examinations are held at the end of each term on the subjects embraced in the course.

Quizzes upon the different branches are held regularly. Specimen quizzes upon Materia Medica, Chemistry, and Pharmacy are held once a week, and consist in the recognition and correct writing of the official names of the specimens presented.

Students are required to make an average of 70 per cent. on all examinations and quizzes.

COURSES LEADING TO THE DEGREE OF GRADUATE OF PHARMACY

In order to be recommended for the degree of Graduate of Pharmacy (Ph. G.) the student must have completed with credit the course of study outlined below. The course extends over two sessions of nine months each. The student must have completed the work of both sessions in the School of Pharmacy of this University, or of one session (the second) here after one in some other recognized school of Pharmacy. He must obtain satisfactory marking in attendance, making a general average of 70 per cent. in the various branches, and submit a satisfactory thesis. The thesis must be an original essay embodying the results of the student's personal research in some branch of Pharmacy, which he has prosecuted under the direction of the professor who assigned him the subject. The subject of such thesis must be announced on or before February 1 to the Dean of the Faculty. On May 2 the thesis

shall be read before the Dean of the School, subject to criticism and correction. The corrected and approved thesis must be handed to the Registrar in typewritten form on or before May 15. It will be published at the discretion of the Dean of the School. He must also have had a practical experience of at least four years with some qualified pharmacist in a dispensing store. Satisfactory evidence on this point must be submitted to the Dean of the School, and a certificate deposited with the Registrar on or before May 15. Students who have not had the full four years' experience will be permitted to stand examinations for graduation; but their diplomas will be withheld until they shall have satisfied this requirement. Of the three years of experience required for license by the State Board of Pharmacy, the work done in the Pharmaceutical laboratory will count for one and only one.

FIRST YEAR.

Pharmacy 1 (5)
Pharmacy 4 (4)
Pharmacy 8 (3)
Pharmaceutical Botany (3) or
Elementary Physics A (3)
Chemistry 1 (3)

SECOND YEAR.

Pharmacy 2 (5)
Pharmacy 5 (8)
Materia Medica (5)
Materia Medica and Pharmacology (5)
Chemistry 3 (2)
Chemistry 9, April and May (3)

COURSES OF INSTRUCTION

Pharmacy

1. Theory and Practice of Pharmacy. This course consists of lectures upon the following subjects, with practical demonstrations and the employment of proper apparatus whenever necessary: metrology, comminution,

heat evaporation, distillation, sublimation; fusion, calcination, granulation, oxidation, reduction, etc.; solution of solids, liquids, and gases; deliquescence, efflorescence, etc.; colation, filtration, decolorization, clarification, precipitation, etc.; macration, expression, infusion, decoction, etc.; percolation, and study of the following: waters, syrups, honeys, glycerites, mucilages, mixtures, spirits, elixirs, liniments, collodians, tinctures, wines, vinegars, and fluid extracts. Text: Remington, *Theory and Practice of Pharmacy*. First year. *Both terms, five hours*. Professor HOWELL.

2. Theory and Practice of Pharmacy: The official forms and preparations of drugs are taken up in detail. Beginning with the inorganic compounds, the salts are considered with regard to their commercial qualities and pharmaceutical uses and preparations. The organic compounds are studied, commencing with the salts of the organic acids and passing to the natural and organic compounds. Second year. *Both terms, five hours*. Professor HOWELL.
3. Pharmaceutical Botany and Materia Medica: This course takes up the study of the medicinal plants. It embraces Organography, Vegetable Histology, Morphology, and Plant Geography. Each plant is studied with reference to the part official in pharmacy, the constituents, action and uses, official preparations and assay of the drug. Instruction is also given in growing native plants and in mounting them for exhibition purposes. *Both terms, three hours*. Text-books: Bastins' *College Botany* and Ruddiman's *Materia Medica*. Mr. BEARD.
4. Operative Pharmacy: a practical course with laboratory work. First year. *Both terms, four hours*. Mr. BEARD.
5. Operative Pharmacy: a continuation of course 4. Second year. *Both terms, two hours*. Professor HOWELL.

Materia Medica and Pharmacology

1. **Materia Medica**: lectures on the geographical and botanical sources of drugs; descriptions and uses of the same, together with their preparation and doses. Opportunity is given the student to familiarize himself with most of the crude drugs and their preparations. Text: White and Wilcox. *Fall term, three hours.* Mr. BEARD.
2. **Materia Medica and Pharmacology**: This course is devoted to the study of the origin and constitution of remedial measures, their preparation and doses; and in particular, their physiological action and the indications for their rational use. Opportunity will be given to students to familiarize themselves with the more important crude drugs and their preparations. Instruction is given by means of lectures, recitations, and demonstrations. The lectures intended to accompany the work in Toxicology are given as a part of the course in Materia Medica. Professor MACNIDER.
8. **Pharmacy**. In this course, which deals with several branches of pharmacy, synonyms are first taken up and all common and practical names of plants and chemicals are studied. Along with synonyms, the specimens commonly seen in drug stores are shown and methods given for the recognition of each. This is followed by a detailed list of all terms descriptive of the therapeutic action of drugs.

A short course is given in pharmaceutical Latin. A student of this course will be taught to read and write correctly prescriptions in full Latin. In addition, instruction is given in the Latin prefixes and suffixes used to form the names of chemicals and galenicals.

The spring term is wholly taken up with a complete course in pharmaceutical arithmetic. Beginning with the metric system, the student is instructed in Alligation, Specific Gravity, Specific Volume, Percentage, Proportion, etc. Text-book: Sturmer's *Pharmaceutical Arithmetic*. *Both terms, three hours.* Mr. BEARD.

Physics

Elementary Physics (Physics A): the fundamental facts of Physics are studied with some special reference to heat and electricity. Text-book, lectures, and laboratory work. First year. *Both terms, three hours.* Mr. CHRISLER.

Certificates of Physics work done elsewhere than in a college of approved standing will not be accepted in lieu of this course.

Chemistry

1. General Descriptive Chemistry: the elements are studied in a systematic manner; the laws governing their combination, and the compounds resulting, are considered with appropriate reference to their occurrence and relationships to medicine. The latter part of the course is taken up with organic chemistry. Texts: McPherson and Henderson's *Elementary Study of Chemistry*, and Remsen's *Organic Chemistry*, supplemented by lectures and quizzes. First year. *Both terms; lectures, three hours; laboratory, one hour.* Professor HERTY and Messrs. VENABLE and CARTER.
3. Qualitative Analysis: laboratory work with lectures; the behavior of the elements and their compounds is studied in the laboratory. Practice is given in the analysis of known and unknown mixtures with special reference to the detection of poisons and determination of the purity of drugs. Second year. *Both terms, two hours.* Professor WHEELER and Mr. HOKE.
9. Toxicology: laboratory work: the chemical alkaloids of poisons and their separations are studied in the laboratory. Text, Autenrieth and Warren's *Detection of Poisons*. *April and May, three hours.* Professor WHEELER and Mr. CONROY.

Laboratory fee, \$1.50.

OPTIONAL COURSES

The following courses are not required of students in Pharmacy, but may be elected profitably.

Elementary Physiology

The study of Physiology is begun in the spring term of the first year, during which the physiology of digestion, the digestive glands, blood, respiration, metabolism, excretion, and animal heat are considered in lectures illustrated by experiments. The study is continued in the fall term of the second year by consideration of the physiology of the muscles and of the nervous system. During this term also the student learns the methods of experimental physiology by means of class work in the laboratory. Texts: *American Text Book*, Stewart, or Kirke. *Both terms, three hours.* Professor MACNIDER.

Zoology

Elements of Zoology: an introductory course giving an outline of the classification and structure of animals, fundamentals of histology, embryology, and physiology, with some consideration of biological theories; lectures with laboratory work. Text: Parker. *Both terms, three hours.* Professor WILSON and Mr. GEORGE.

Botany

General Introduction to Systematic Botany: with special attention to medical plants; laboratory and field work, with recitations. *Spring term, three hours.* Professor COKER and Mr. COBB.

Chemistry

Industrial Chemistry: lectures; the application of chemistry to the arts and industries. This course includes metallurgy, glass making, pottery, (*fall term*); food, clothing, building materials, explosives, photography, etc., (*spring term*). *Both terms, three hours.* Professor HERTY.

Quantitative Analysis: laboratory work. This course is intended to give the student a thorough grounding in analytical methods and manipulations. *Three hours.* Associate Professor BELL.

Quantitative Analysis: laboratory work. The student in this course is led further into the study and practice of analytical methods. The work may take any special direction desired by him, fitting him to be an agricultural chemist, iron chemist, manufacturing chemist, physician, druggist, or teacher of chemistry. The spring term is given to research. *Five hours.* Professor HERTY.

Determinative Mineralogy: lectures with laboratory work. Dana's *Text-Book of Mineralogy*. *Both terms, two hours.* Mr. SMITH.

Bacteriology

The student learns by practical experience the methods of cultivating, staining, and identifying the principal bacteria, and their pathological significance is explained by lectures and demonstrations by inoculation of animals. In this way the chief pathogenic bacteria are studied in pure culture on the various media, after which the methods of obtaining pure culture from mixtures of bacteria are learned. The necessary manipulations are carried out by the students, who thus obtain a practical knowledge of the subject which can be gained in no other way. *Fall term, six hours.* Professor MACNIDER.

Students in Pharmacy have also the privilege of attending any of the regular academic courses.

PHARMACEUTICAL LABORATORY

OFFICERS.

EDWARD VERNON HOWELL, A. B., Ph. G., *DIRECTOR and Professor of Pharmacy.*

JOHN GROVER BEARD, Ph. G., *Instructor in the Pharmaceutical Laboratory.*

The rooms of the Pharmaceutical Laboratory are admirably adapted to this purpose. They are conveniently situated on the first floor, are well lighted, and well equipped with water,

electric lights, and gas. To each student is assigned a desk, provided with lock and key, and containing all the apparatus necessary for the every day work of the pharmacist. In the store room is kept a supply of materials for practical work, as well as the apparatus for the more complex operations. Ample space is provided for the work at the prescription counter, where practical instruction in the compounding and dispensing of prescriptions is given.

A small deposit fee is required to cover the cost of breakage of apparatus. At the end of the session this fee will be returned, less the amount of breakage.

OTHER LABORATORIES

The laboratories of Physics, Chemistry, and Biology are open to students in Pharmacy. These laboratories are all equipped with the most approved apparatus for experimentation and illustration.

READING ROOM AND LIBRARY

The School of Pharmacy is provided with a well selected library and with a reading room, inaugurated by the class of 1897, in which are filed a large number of medical and pharmaceutical journals.

In addition to these advantages, students of this department enjoy the privileges of the University reading room, in which are filed all the leading newspapers and magazines, and free access to the University Library, which numbers sixty-five thousand volumes and eighteen thousand pamphlets.

THE SUMMER SCHOOL

FACULTY AND OFFICERS

(1912)

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., PRESIDENT.

NATHAN WILSON WALKER, A. B., DIRECTOR.

OSCAR LEACH, SECRETARY.

MRS. CLIFTON L. WHITAKER, MATRON CARR BUILDING

MRS. J. T. YEARGIN, MATRON MARY ANN SMITH BUILDING.

INSTRUCTORS

GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*

NATHAN WILSON WALKER, A. B., *Professor of Secondary Education.*

JOSEPH GREGOIRE DE ROULHAC HAMILTON, Ph. D., *Alumni Professor of History.*

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

LOUIS ROUND WILSON, Ph. D., *Associate Professor of Library Administration.*

ADOLPHE VERMONT, A. M., *Superintendent of the Smithfield Graded Schools.*

THOMAS PERRIN HARRISON, Ph. D., *Professor of English in the North Carolina College of Agriculture and Mechanic Arts.*

MISS MARY GOODWIN GRIGGS, *Visiting Supervisor of the Prang Company, New York.*

THOMAS JAMES WILSON, JR., Ph. D., *Associate Professor of Latin.*

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

GEORGE MCFARLAND MCKIE, A. M., *Associate Professor of Public Speaking.*

MISS MARY OWEN GRAHAM, *Supervising Teacher in the Training School of the North Carolina State Normal and Industrial College, Greensboro.*

COLLIER COBB, A. M., *Professor of Geology.*

GEORGE THADDEUS WHITLEY, A. M., *Superintendent of the Clayton Graded Schools.*

HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of History.*

JAMES FINCH ROYSTER, Ph. D., *Professor of English.*

JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*

HENRY PATRICK HARDING, A. B., *Principal of the Charlotte City High School.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

EDWIN R. JACKSON, B. S., *Expert in the Forest Service, U. S. Department of Agriculture.*

KARL JANSEN, *Popular Lecturer and Entertainer.*

MRS. LENORE A. ELDRED, *Supervisor of Drawing in the City Schools of Birmingham, Ala.*

J. H. WOODRUFF, *Supervisor of Writing in the Public Schools of Indianapolis, Indiana.*

MISS MAY ALEXANDER, *Supervisor of Writing in the City Schools of Asheville, N. C.*

GUSTAV HAGEDORN, *Professor of Violin, Orchestral Instruments, and Instructor in Harmony, Counterpoint, in Meredith College, Raleigh, N. C.*

ELIZABETH BURTT HAGEDORN, *Professor of Piano in Meredith College, Raleigh, N. C.*

SPECIAL LECTURERS

ROBERT DIGGS WIMBERLY CONNOR, *Secretary of the North Carolina Historical Commission.*

DR. WATSON S. RANKIN, *Secretary of the North Carolina State Board of Health.*

LAUTREC CRANMER BROGDEN, *State Supervisor of Rural Elementary Schools for North Carolina.*

MISS MINNIE W. LEATHERMAN, *Secretary of the North Carolina Library Commission.*

JOSEPH ADDISON BIVINS, *State Supervisor of Teacher Training for North Carolina.*

EDWIN R. JACKSON, *Expert U. S. Forest Service.*

CHARLES DE GARMO, Ph. D., *Professor of Education in Cornell University.*

PRELIMINARY ANNOUNCEMENT FOR 1913

The University Summer School for Teachers will open on Wednesday, June 11th, and continue in session for a term of six weeks, closing on Wednesday, July 23, 1913.

A strong Faculty of Specialists and successful Teachers chosen because of their recognized ability and their especial fitness.

Courses will be offered in Primary School Methods, the Common School Branches, Arithmetic, Algebra, Geometry, Trigonometry, Secondary Education, Educational Psychology, School Administration, English Grammar, Composition and Literature, History, Physics, Astronomy, Chemistry, Agriculture, Geography, Forestry, Latin, French, German, Drawing, Library Administration, and Public School Music. Special courses to meet the needs of all classes of Teachers.

No tuition fees charged teachers of the State or those preparing to become teachers. A nominal registration fee of five dollars admits to all courses. The University Library and Laboratories open to students of the Summer School without additional cost.

Board at Commons Hall and Lodging in the College Dormitories furnished at actual cost.

The earnest teacher or student who wishes to spend a part of the summer in quiet, intensive study, under competent instructors, will find here excellent opportunity.

A bulletin containing detailed information as to courses of study, instructors, expenses, etc., will be ready in March. This will be sent, upon application, to anyone interested.

PART FIVE

THE UNIVERSITY LIBRARY
PUBLIC LECTURES
THE BYNUM GYMNASIUM
LABORATORIES
UNIVERSITY ORGANIZATIONS

THE UNIVERSITY LIBRARY

OFFICERS

LOUIS ROUND WILSON, Ph. D., *Librarian*.
CHARLES LEE RAPER, Ph. D., *Committeeman*.
WILLIAM CHAMBERS COKER, Ph. D., *Committeeman*.
WILLIAM MORTON DEY, Ph. D., *Committeeman*.
JAMES FINCH ROYSTER, Ph. D., *Committeeman*.
NAN SPOTSWOOD STRUDWICK, *Assistant Librarian*.
THOMAS MICHAEL RAMSAUR, *Assistant in the Library*.
GEORGE PICKET WILSON, *Assistant in the Library*.
EDGAR RALPH RANKIN, *Assistant in the Library*.
JOHN ROBERT GENTRY, *Assistant in the Library*.
JESSE FORBES PUGH, *Assistant in the Library*.

The University Library contained at the end of the academic year 1911-1912 sixty-five thousand and twenty-seven volumes and about eighteen thousand seven hundred pamphlets. This collection has been largely classified and catalogued according to the Dewey, or decimal system, and its contents have been rendered easily accessible by means of a thorough dictionary author, title, and subject card catalogue.

The Library funds are expended under the direction of the Librarian, the Library Committee, and Professors in charge of Departments with special reference to the instruction given in the University. The annual addition of books from purchase, donations, and exchanges is about thirty-seven hundred volumes, all of which are carefully classified and catalogued as they are received.

The Librarian and those assisting in the Library are constantly in attendance to give help in any line of research or reading. A special collection of dictionaries, encyclopedias, almanacs, handbooks, atlases, concordances, and other reference books is provided for general use in the reference room.

In addition to the resources of the general reference room, the Library places at the disposal of students for reference purposes a collection of ten thousand bound periodicals covering all fields of general, technical, and professional information. A great number of the sets belonging to this collection are complete from their beginning, and consequently completely cover the history and progress of the subjects of which they treat. In this way students pursuing general academic and special technical or professional courses have access to the best American, English, and Continental periodical literature to be found on their subjects. The articles contained in these files are fully indexed in special periodical indexes and are referred to with ease.

Eight hundred and thirty-six current periodicals, transactions of literary, scientific, historical and other societies, university studies, serial publications, and a half hundred daily and weekly newspapers, continuing and supplementing the bound sets, are subscribed for and received annually. They are to be found in the general periodical room and in the seminars, professional schools, and scientific laboratories, where they can be consulted in the course of daily work.

As the Library is a depository for the publications of the United States government, it contains more than seven thousand volumes of material especially valuable for reference in debate and in the study of social and political science, useful arts, and the natural sciences. This collection is thoroughly indexed and its contents are easily consulted.

Five special seminar rooms have been equipped in the general Library to facilitate advanced work in English and German Literatures and Languages, Greek and Latin Literatures and Languages, the Romance Literatures and Languages, History, and North Carolina History. Special scientific and professional collections are to be found in the libraries or seminars belonging to the departments in which such instruction is given. These collections are under the supervision of the instructors in the respective departments and the Librarian, and aid is given students in the use of books relating to their work.

The main Library is housed in a commodious modern library building erected in 1907, and represents an expenditure for construction and equipment of \$66,500.00. The reference, current periodical, and seminar rooms in the main Library are

large, well lighted, and have table and seating capacity for two hundred students at one time.

The stack room contains two levels of steel shelving with stairway and glass mezzanine floor between and, with its present complement of shelving, capacity for seventy thousand volumes. Its ultimate capacity is one hundred and five thousand volumes, which, taken with that of the other parts of the building, totals one hundred and seventy-five thousand volumes.

Brief instruction in the use of the card catalogue, the periodical indexes, and the reference books generally, is given new students at the beginning of each year, and to any student at any time who may request it. Instruction in a regular University class is also given to students who are preparing for positions in school and public libraries with a view to making them more efficient in the discharge of their special duties.

The Library is open on week days from 8:30 A. M. to 1:15 P. M., and from 2:00 P. M., to 5:00 P. M.; on week day evenings, Saturday excepted, from 7:00 P. M. to 9:30 P. M.; on Sunday, from 2:30 P. M. to 4:30 P. M.; on University holidays from 3:00 P. M. to 4:00 P. M.

The following rules are considered necessary for the proper use of the Library. They will be enforced with strict impartiality.

Subscribers to the Library are the students and members of the faculty.

Other persons who desire to use the Library may become subscribers on payment of the regular Library fee.

The Library fee is four dollars a year, two dollars a term, or fifty cents a month.

Persons who are not subscribers may not borrow books on a subscriber's name.

Not more than three books may be charged to one name at the same time.

Fines for books kept over fourteen days (including the day of issue) will be imposed with exact regularity at the rate of five cents per day. Books borrowed for debate or for class use may be kept out from 9 P. M. until 10 A. M. of the following day. After that hour they are subject to a fine at the rate of

five cents per hour. The date on the pocket on fly-leaf of book is sufficient notice when the book is due.

Failure to pay fines within three weeks from the time they are due will debar the delinquent from further use of the Library.

Books from the reference room must remain in the Library during Library hours. They may be loaned only at the discretion of the Librarian.

Magazines must not be removed from the Library until they are bound. If removed they are subject to the regulations applying to debate books.

Mutilation of books or magazines, or defacement by writing in them, must be paid for by the purchase of a new copy.

Any conversation in the Library, except to obtain books desired, is forbidden.

Continued disregard for any of these rules will cause the offender to forfeit the right to use the Library.

THE JOHN CALVIN MCNAIR LECTURES

The lecture fund established by the will of John Calvin McNair, of the class of 1849, became available in 1906, and the interest therefrom rendered it possible to begin the lectures in 1908. The honorarium for the lectures amounts to \$500, and the remainder of the interest from the fund provides for the suitable publication of the lectures. Under the will the objects of the lectures "shall be to show the mutual bearing of science and religion upon each other and to prove the existence of attributes (as far as may be) of God from nature."

The lectures for 1908 were delivered by Professor Francis H. Smith, LL. D., of the University of Virginia. The three lectures were:

1. The general theme: God Manifest in the Material Universe.
2. His Attributes as Manifested in Physics.
3. His Attributes as Manifested in Astronomy.

The lectures for 1909 were delivered by President Francis Landey Patton, D. D., LL. D., of Princeton Theological Seminary, New Jersey. The four lectures were:

1. The Authority of the Bible.
2. The Authority of the Church.
3. The Authority of Christ.
4. The Authority of the Reason.

The lectures for 1910 were delivered by President David Starr Jordan, Ph. D., M. D., LL. D., of Leland Stanford, Jr., University, California. The lectures were on the theme:

The Stability of Truth.

The lectures for 1911 were delivered by Professor Henry Van Dyke, D. D., LL. D., of Princeton University. The three lectures were:

1. The Poetry of Nature.
2. The Poetry of Patriotism and Humanity.
3. The Poetry of the Unseen World.

The lectures for 1912 were delivered by President Arthur Twining Hadley, A. M., LL. D., of Yale University. The three lectures on the general subject, Some Tendencies of Modern Philosophic Thought, were:

1. Changed Conceptions of Science.
2. New Views of Ethics and of Politics.
3. The Spiritual Basis of Modern Literature.

The lectures for 1913 were delivered by Professor Francis G. Peabody, A. M., D. D., LL. D., of Harvard University. The three lectures were:

1. The Practicability of the Christian Life.
2. The Christian Life and the Modern Home.
3. The Christian Life and Modern Business.

The lectures for 1914 will be delivered by President George Edgar Vincent, Ph. D., LL. D., of the University of Minnesota.

WILLIAM PRESTON BYNUM, JR., GYMNASIUM

ROBERT BAKER LAWSON, M. D., *Director.*

THOMAS SPURGEON HUGHES, *Assistant.*

CARL DUFFY TAYLOR, *Assistant.*

The William Preston Bynum, Jr., Gymnasium, the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893, is a handsome, two-storied brick building, furnished with modern apparatus, swimming pool, baths, lockers, and running track. It contains also the trophy room and the office of the Instructor in Physical Training.

Exercise in the Gymnasium is required three hours a week of all the students in college except Seniors. A thorough physical examination of each student is made in the fall, and, in case students desire it, another in the spring. The measurements are indicated in a Prescription of Exercise pamphlet and are furnished to the students free of charge in the fall term. This book contains directions for the developing of every part of the body, as well as suggestions on hygiene and personal care of the body; it is free from technicalities and confusing terms. Too much importance cannot be attached to the physical examination, since it enables the student to work intelligently and to economize his time. The physical examination is designed to aid the student by pointing out defects, and causing him to direct his efforts toward the correction of them.

LABORATORIES AND MUSEUMS

THE PHYSICAL LABORATORIES

ANDREW HENRY PATTERSON, A. M., *DIRECTOR and Professor of Physics.*

PARKER HAYWARD DAGGETT, S. B., *Associate Professor of Electrical Engineering.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

JOHN MADISON LABBERTON, *Assistant in Electrical Engineering.*

JAMES BLAINE SCARBOROUGH, *Assistant in Physics.*

The Physical Laboratory occupies the eastern half of the main floor and almost the whole of the basement floor of the Alumni Building, amounting to about eight thousand feet of floor space.

The main floor is divided into two lecture rooms, an apparatus room, laboratory for students in the general course, Physics 1, and a laboratory for X-ray and photometric work.

In the rooms of the basement are located the dynamos, motors, electrical laboratory, storage battery, and the workshop for wood and metal.

The Electrical Laboratory is equipped with standard types of electrical machines: dynamos, motors, transformers, meters, switchboard, storage battery, and the usual accessories, needed for practical instruction in electrical engineering.

The electric light, central heating, and waterworks plants constitute valuable adjuncts to the laboratory. For work in practical testing there are available a 35 H. P. Ball engine, a 20 H. P. slide-valve engine, two types of steam pumps, two gasoline engines, with calorimeters, meters, thermometers, Orsat apparatus, and other accessory apparatus necessary for making complete tests on power plants. The central power plant of the University also contains a 115 H. P. Ball and Wood engine, directly connected to a Crocker-Wheeler 3-phase generator; a 70 H. P. Skinner engine with direct-connected

General Electric 3-phase generator; a 50 H. P. De Laval steam turbine; a D'Olier four stage centrifugal pump, direct-connected to a 75 H. P., 3-phase Crocker-Wheeler motor, and all necessary accessories.

The old storage battery proving inadequate for the growing needs of this and other scientific departments, a new one was installed in September, 1910, consisting of sixty type E-13 cells purchased from the Electric Storage Battery Company, of Philadelphia. This installation provides a direct current of 120 volts available for use at all times.

CHEMISTRY HALL

CHARLES HOLMES HERTY, Ph. D., *DIRECTOR and Smith Professor of General and Industrial Chemistry.*

ALVIN SAWYER WHEELER, Ph. D., *Professor of Organic Chemistry.*

JAMES MUNSIE BELL, Ph. D., *Associate Professor of Physical Chemistry.*

CHARLES SCOTT VENABLE, A. M., *Instructor in Chemistry.*

JAMES TALMAGE DOBBINS, A. M., *Le Doux Fellow in Chemistry.*

WILLIAM LEWIS JEFFRIES, A. M., *Toch Fellow in Chemistry.*

BURKE HAYWOOD KNIGHT, A. B., *Fellow in Technical Chemistry.*

LUCIUS EUGENE STACY, JR., A. B., *Fellow in Organic Chemistry.*

PAUL ROBY BRYAN, *Assistant in Chemistry.*

CARNIE BLAKE CARTER, *Assistant in Chemistry.*

FRANK DAVIES CONROY, *Assistant in Chemistry.*

CLARENCE BALLEW HOKE, *Assistant in Chemistry.*

JACKSON TOWNSEND, *Assistant in Chemistry.*

The overcrowded condition of the laboratories and lecture room in Person Hall, and the unsatisfactory ventilation of the laboratories, made urgent the need for a larger and better arranged building for the Department of Chemistry. These facts, together with the complete plans for a new building, were laid before the Legislature in 1905 and an appropriation of \$50,000

asked. The appropriation was voted, and in a short while the work of construction was under way.

The new building, Chemistry Hall, is located east of Alumni Hall and north of the New East building, facing west. By the selection of this location good water pressure is assured for all of the laboratories in the building.

The outer walls are of salt and pepper brick laid with black mortar.

The main building, 120 x 68 x 48, comprises a first floor, a second floor, and a commodious basement. Adjoining this main building and to the rear of the center is the lecture room, 41 x 62 x 22.

To the right on entering the main building are the office and the private laboratory of the Director, the department library, and a small laboratory: to the left are the office and private laboratory of the Professor of Organic Chemistry, a large laboratory for organic chemistry, containing locker desks for twenty-four students, and a combustion room.

On the rear or east side of the first floor are the laboratories for organic chemistry for medical students (thirty-two desks), and a private laboratory, advanced quantitative analysis (twenty-four desks), and a research laboratory (six desks).

On the second floor are the laboratories for general chemistry (sixty-six desks), qualitative analysis (sixty desks), physical chemistry (eight desks), electro-chemistry (eight desks), a research laboratory (sixteen desks), a laboratory for quantitative analysis (forty-eight desks), a fume room, and a small lecture room. At the ends of the corridor on the second floor are a balance room, preparation room, and a dark room for spectroscopic work.

In the basement are the assay laboratory, rooms for gas machine, electric furnace, technical chemistry, constant temperature, a photographic dark room, a carpenter-shop, stock room for heavy chemicals, and a large stock room for chemicals and apparatus. From this stock room material is supplied to each floor of the building by an elevator.

Each laboratory is furnished with ample fume closets for the removal of noxious gases, while pivoted window sash insure proper ventilation of the rooms.

The entire building is heated by hot water from the central system of the University.

The main entrance hall leads direct to the lecture room, which is well lighted by high arched windows and has a seating capacity of two hundred, which can be increased somewhat as need requires. To the rear of the lecture room are a preparation room, and a museum for specimens of typical chemicals, mineral, and products illustrating the various phases of chemical industries. Above these two last rooms is a small room for filing charts, diagrams, etc., used in illustrating lectures.

The recently installed storage battery in the Department of Physics furnishes ample current for stereopticon purposes and for motors.

THE BIOLOGICAL LABORATORY

HENRY VAN PETERS WILSON, Ph. D., DIRECTOR, and *Professor of Zoology*.

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany*.

WESLEY CRITZ GEORGE, A. M., *Instructor in Zoology*.

ALLYN RAYMOND BROWNSON, *Assistant in Zoology*.

WILLIAM BATTLE COBB, A. B., *Assistant in Botany*.

The Biological Laboratory, Davie Hall, is occupied by the Departments of Zoology and Botany. The building is a rectangular structure of pepper and salt brick and is divided into a main body and two wings. The total length is 125 feet, the depth of the main body 44 feet, that of the wings 38 feet. A basement underlies the whole, above which are two floors. The main body has an additional third chamber, which extends out over the wings, forming spacious air chambers. The building faces north and south, lies to the east of the New East, and adjoins the Arboretum.

The entrance hall, on the first floor, lit with large windows on either side of the main doorway, serves for the exhibition of museum specimens of a more popular character. Back of the entrance hall are herbarium, a room for charts and other lecture apparatus, and a room for the storage of zoological specimens. The west wing of this floor is occupied by a lecture room with a seating capacity of one hundred and twenty, the east wing by a laboratory for the elementary classes in zoology and botany. The latter laboratory is arranged for twenty-four wall tables with window in front of each table.

On the second floor the east wing is occupied by a single large laboratory for advanced work in zoology and the west wing by a similar laboratory for advanced work in botany. Each of these rooms accommodates twenty workers and is lit on three sides with twenty windows. The main building on this floor includes private work rooms for the professors of zoology and botany, two store rooms, and a library. On the third floor of the main body is a photographic studio with windows on the north side extending to the floor, and with skylights. The building is provided with electric lights and is heated with hot water. The furnace and fuel rooms are in the basement. Here also are fire proof incubator room, a room for micro-photography with adjoining dark room, janitor's shop, and rooms for the storage of heavy supplies. The wings in the basement are designed for the keeping of live animals and plants for experimental work in botany and zoology. An elevator connects the basement with all floors.

THE GEOLOGICAL LABORATORY AND MUSEUM

COLLIER COBB, A. M., DIRECTOR and *Professor of Geology and Mineralogy.*

JOSEPH HYDE PRATT, Ph. D., *State Geologist and Professor of Economic Geology.*

JOHN ELIPHALET SMITH, M. S., *Instructor in Geology.*

ROBERT CAMPBELL JURNEY, *Assistant in Geology.*

The Geological Laboratory occupies the first floor of the New East building. In addition to a lecture room with a seating capacity of about ninety, there is a large laboratory supplied with working collections of minerals, rocks, and fossils, and with photographs, maps, and models illustrating geological structure. The laboratory is furnished with two petrographical microscopes, with microscopes for soil study, and with apparatus for the slicing and polishing of rocks. Microscopic slides have been made of most of the specimens from North Carolina; and the department has, also, sections of the typical European rocks. Sections of the rocks around Chapel Hill, and the igneous rocks of the Boston Basin, made by the late Hunter Lee Harris, of the class of 1889, were given to the

geological department. There is a room for photographic work.

The University possesses a collection of more than two thousand specimens of building stones, coal, and various products illustrating the economic geology of the State. These are arranged in an exhibition room of six hundred and fifty square feet of floor space. Here also are kept the sections taken with a diamond drill in the coal regions of Pennsylvania, in the region around King's Mountain, where the Summer School of Geology held its sessions, in the Dan River coal fields, and in the Triassic Rocks at Durham, N. C. A complete set of the ores of the precious metals found along the line of the Atchison, Topeka, and Santa Fe Railroad is included in the collection. Valuable additions have been made to the collection of fossils also, affording increased opportunity for laboratory work in historical geology and paleontology. A small collection of tertiary type fossils from Florida, the gift of Mr. Joseph Wilcox, of Philadelphia, is the most recent addition to the paleontological collection. The collection illustrating economic geology has been largely increased.

The department library, which occupies a room adjoining the exhibition room, is supplied with State and United States Reports, the papers of working geologists, the best works upon Geology, and scientific periodicals.

UNIVERSITY ORGANIZATIONS

THE DIALECTIC AND PHILANTHROPIC LITERARY SOCIETIES

The Dialectic and Philanthropic Literary Societies were organized in 1795, the year of the opening of the University. Their existence has been inseparably linked with that of the University, and they have shown remarkable power in developing character as well as in training the intellect. They offer facilities for practice in debate, oratory, declamation, and essay writing; and their members become practically familiar with parliamentary law and usage.

Each society owns a large, handsomely furnished hall, the walls of which are hung with oil portraits of illustrious members. Meetings are held by each society every Saturday evening during the college year, admission being confined to members. Public contests in debate between the two societies are conducted twice a year, and in addition to these, there is a system of intercollegiate debates. On Monday evening before Commencement the Inter-Society banquet is held, after which each society has its annual reunion. On Tuesday evening preceding Commencement day four representatives elected from the two societies have a public competition in debate, and a prize is awarded to the successful competitors.

By immemorial custom, students from the eastern half of the State usually join the Philanthropic Society, while those from the western half join the Dialectic Society. Although membership in the societies is entirely optional, yet it is earnestly recommended by the faculty as furnishing unusual opportunities not only for literary culture, but also for the development of self control and the power to persuade and control others.

ELISHA MITCHELL SCIENTIFIC SOCIETY

EDWARD VERNON HOWELL, Ph. G., *President*.

PARKER HAYWOOD DAGGETT, S. B., *Vice-President*.

FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., *Permanent Secretary and Treasurer*.

JAMES MUNSIE BELL, Ph. D., *Recording Secretary*.

The Elisha Mitchell Scientific Society holds monthly meetings during the college year for the discussion of scientific subjects. A Journal, which is the official organ of the North Carolina Academy of Science, is issued quarterly. The object of the Society is to encourage scientific research and to record such matters as pertain to the natural history of the State. The membership is at present restricted to the faculty and students of the University, and members of the staff of the Geological Survey.

At the monthly meetings, which are ordinarily held on the second Tuesday of each month, excellent opportunities are afforded the students to get beyond the ordinary routine of the class room by hearing, reading, and discussing papers on scientific subjects.

The Journal is in a measure a bulletin of the scientific laboratories of the University, and contains many articles written by research students. It is now in the twenty-seventh year. The volumes already issued contain twenty-five hundred pages. By the exchange of the Journal with more than three hundred scientific journals and periodicals, over ten thousand books and pamphlets have been collected, all of which are arranged in the University Library.

THE NORTH CAROLINA HISTORICAL SOCIETY

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *President*.

MARCUS CICERO STEPHENS NOBLE, *Vice-President*.

ELLIS MERTON COULTER, *Secretary*.

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *Permanent Secretary*.

The North Carolina Historical Society was founded in 1833 by Governor David L. Swain. When Governor Swain became President of the University, the Society was moved from

Raleigh to Chapel Hill. Under his leadership it became the centre of historical work in the State and the medium of many notable contributions to the history of the State. On March 22, 1875, through the activity of Kemp Plummer Battle, LL. D., the Society was chartered by an act of the General Assembly. The purpose of the Society is to collect, classify, and publish material illustrative of the history of the State. The Society possesses a valuable collection of books, pamphlets, manuscripts, newspaper files, coins, and other subjects of historic interest. The educational aim of the Society is to create a love for historical study and to give training in scientific methods of historical investigation. To this end meetings are held monthly in the History lecture room, at which papers, based on original research, are read and discussed. All members of the University are eligible for membership.

THE PHILOLOGICAL CLUB

WILLIAM MORTON DEY, Ph. D., *President*.

OLIVER TOWLES, Ph. D., *Vice-President*.

WILBUR HIGH ROYSTER, A. M., *Secretary*.

LOUIS ROUND WILSON, Ph. D., *Permanent Secretary and Treasurer*.

The Philological Club meets on the first Tuesday evening of each month during the college year. Its membership consists of the instructors and advanced students in the language departments of the University. The object of the Club is to stimulate original investigation in philology and to afford an opportunity for the interchange of views on subjects relating to such work. At each meeting papers are read and discussed. The Club publishes a journal of two issues a year whose contents are contributed by the members. All persons interested in the work of the Club are invited to attend its meetings.

DER DEUTSCHE VEREIN

WALTER DALLAM TOY, M. A., *President*.

KENT JAMES BROWN, Ph. D., *Vice-President*.

The Verein was organized with a view of stimulating interest among the officers and students of the University in all

topics pertaining to German life. Weekly meetings are held throughout the year, at which the German language only is employed. Subjects of general interest pertaining to German literature, history, art, and politics are discussed. An effort is made also to provide students of German with an opportunity to perfect their pronunciation and to improve their control of the spoken language. It is part of the purpose of the Verein to arrange from time to time for public lectures in German. All officers and students of the University interested in the study of German are eligible to membership.

LE CERCLE FRANCAIS

WILLIAM MORTON DEY, Ph. D., *President*.

OLIVER TOWLES, Ph. D., *Permanent Secretary*.

Le Cercle Francais holds weekly meetings at which topics of general interest pertaining to French literature, and French life, manners, and customs are discussed. The French language is employed exclusively. It is the aim of the club to stimulate interest in the French language, to provide its members with an opportunity to hear idiomatic French spoken, and to use the language with more facility. All officers and students of the University interested in the study of French are eligible to membership.

MUSICAL ASSOCIATION

DOUGLAS LE TELLE RIGHTS, *President*.

HARRY MURDEN STUBBS, *Vice-President*.

JOHN SPEIGHT HUNTER, *Business Manager*.

ROBERT OBEDIAH HUFFMAN, *Secretary and Treasurer*.

The aim of the association is to foster the love of music and to afford opportunity of instruction to those interested in music. The organization consists of an orchestra, a brass band, a mandolin and a glee club, which are representative of the musical talent of the University.

THE UNIVERSITY COUNCIL

WALTER STOKES, JR., *President*, President of the Senior Class.

D. H. CARLTON, *Secretary*, President of the Junior Class.

PHILIP WOOLLCOTT, President of the Sophomore Class.

J. N. TOLAR, President of the Second Year Medical Class.

L. H. WINSTEAD, President of the Second Year Pharmacy Class.

FRANK GRAHAM, Representative from the Law Class.

W. G. HARRY, (elected by Council) Representative from the Senior Class.

A. L. HAMILTON, Representative from the Student Body at Large.

The University Council is the head of the honor system. It is the concrete expression of the moral University, the student instrument of self-government. Its members being elected of the students by the students, it is grounded upon, and gives expression to, student sentiment. The Council is not an organization of policemen, nor is it based upon a system of espionage. When any student is felt by his fellow students to be unworthy to remain in the University, the Council takes cognizance of this feeling. It examines the matter, finds the facts in the case, and decides upon the justice of that feeling. If the student is found guilty of conduct unworthy of a University man, he is requested by the Council to leave the University. For example, if it becomes known among the students that a man has been guilty of cheating upon examination, he is disgraced in the eyes of the University community; and the students without hesitation, through their organ of expression, the Council, demand that he forthwith leave the University. The student sentiment expresses itself in this way not only in case of so flagrant a violation of the honor system as cheating, but also in cases of continued drunkenness, gambling, and such other forms of misconduct. Thus it can be seen that the student body has an effective system of self-government, that the motive power of this self-government is student sentiment, and that the organ of expression of this sentiment is the University Council.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION

DOUGLAS L. RIGHTS, *President*.

E. M. COULTER, *Recording Secretary*.

A. L. M. WIGGINS, *Treasurer*.

EDMUND P. HALL, A. B., *General Secretary*.

The University Young Men's Christian Association, with its centrally located House as a meeting place and home for the students; with its work for new students; with its social receptions; with its annually published handbook and directory; with its lyceum course; with its support of eight Sunday schools; with its self-help department; with its semi-weekly religious meetings; with its ministerial and missionary clubs; with its large enrollment of men in Bible and mission study; the Young Men's Christian Association through these channels is an organized agency for usefulness and an aggressive force for morality in the University life.

However, "the Young Men's Christian Association may not be viewed," says a member of the faculty, "merely as an institution for the conduct of mission work, Bible study and religious meetings. Besides these excellent works which it shares with the churches, it is unique as a democratic student organization wholly given up to solving problems of right living. Its energy, sanity, and devotion have made it the most prominent and efficient organization in the college and the most beneficent influence in the life of the college community."

Bible Courses

1. Studies in the Life of Christ (Bosworth). Leaders: T. C. Boushall, E. M. Coulter, W. P. Fuller, J. R. Gentry, J. E. Holmes, W. W. Rankin, E. L. Tilley, J. E. Turlington, B. M. Walton, J. O. Graham, E. P. Hall.
2. New Studies in Acts (Bosworth). Leaders: R. C. Cox, E. W. Joyner, D. L. Rights, R. C. Spence, H. S. Willis, P. Woolcott.
3. Normal Class Leader: Secretary E. P. Hall.

Mission Courses

The Decisive Hour in Christian Mission.
The Challenge of the City, by Professor A. H. Patterson.
The Chinese Revolution.

GIFTS

During the past year the following gifts have been made to the University:

An unusually large number of gifts—2421 volumes—were received during the year by the Library. Of these special mention is here made of the collection given by Cross Creek Lodge, I. O. O. F., of Fayetteville, numbering 1000 volumes; by Hon. Richard H. Battle, numbering 577 volumes; by the family of Edward Graham Daves, numbering 500 volumes; by Mrs. J. L. Bridgers, numbering 269 volumes; by Mr. W. Stamps Howard, numbering 29 volumes; by Mrs. Julia Graves, numbering 50 volumes; and a single volume given by the University of Pennsylvania, the volume being exceedingly rare and presented to the Medical Library of the University upon the dedication of Caldwell Hall.

The Laboratory for General Zoology and General Botany in Davie Hall has been equipped with handsome oak work tables through the generosity of Mr. Geo. Stephens, an alumnus and trustee of the University.

The department of Zoology has received from Mr. W. H. Kibler, an alumnus, a collection illustrating the embryology of fishes.

A gift has been received from the General Chemical Company, of New York City, of a large collection of raw products, manufactured products from the same, and a collection of chemically pure substances for the chemical museum.

The William Simpson Pharmaceutical Society was presented with a number of volumes of the Proceedings of the North Carolina Pharmaceutical Association by Mrs. Charles McKimmon, of Raleigh, N. C., in memory of her father.

PART SIX

**COMMENCEMENT
LIST OF STUDENTS
ALUMNI ASSOCIATIONS
SCHEDULES
INDEX**

ONE HUNDRED AND SEVENTEENTH COMMENCEMENT

Saturday, June 1

SENIOR SPEAKERS

Frank Pendleton Barker,
James Manley Daniel, Jr.,

Cyrus Richard Wharton
Henry Ward Doub.

Sunday, June 2

BACCALAUREATE SERMON

The Right Reverend Arthur Selden Lloyd, D. D.

SERMON BEFORE THE YOUNG MEN'S CHRISTIAN ASSOCIATION

The Reverend Charles Edward Maddry

Monday, June 3

ALUMNI EXERCISES

Reunions of the Classes 1882, 1887, 1892, 1907

THE ALUMNI ADDRESS

Herman Harrell Horne, Ph. D.

THE DEBATE BY REPRESENTATIVES FROM THE DIALECTIC AND

PHILANTHROPIC LITERARY SOCIETIES

Dialectic

Robert Waldon Isley
John Carroll Busby

Philanthropic

Hubert Conner Petteway
Walter Raleigh Petteway

Tuesday, June 4, Commencement Day

THE COMMENCEMENT ADDRESS

Edwin Anderson Alderman, D. C. L., LL. D.

DEGREES IN COURSE

Bachelors of Arts

Cleaton Otis Armstrong	Clarence Walton Johnson
Walter Dorsey Barbee	Leslie Newcirk Johnston
Frank Pendleton Barker	James Conrad Lanier, Jr.
Emmett Hargrove Bellamy	Jesse Cleveland Lassiter
Robert Willis Bobbitt	John Clegg Lockhart
Caleb Kight Burgess	Joel Jenkins McAden
Clyde Lucius Cates	Monroe Anderson McIver
William Preston Cline	John Duncan McLean
William Battle Cobb	Henry Burwell Marrow
Charles Spurgeon Cook	William Peter Moore
Charles Fowler Cowell	Lawrence Nelson Morgan
James Rowland Craven	James Ward Morris, Jr.
Henry Cleveland Craver	David Reid Murchison
William Jesse Crutchfield	Clarence Edward Norman
James Manley Daniel, Jr.	James Laurence Orr
Beecher Tate Denton	Samuel Green Parker
Henry Ward Doub	Earl Victor Patterson
Frederick Blount Drane	James Dickson Phillips
William White Falkener	Columbus Washington Eagles Pitt-
James Paul Fenner	man.
Alonzo Dillard Folger	Thomas Moore Price
Robert Alexander Freeman	Cary Perry Quincy
Samuel Mallette Gattis, Jr.	James Hall Rand
Alexander Hawkins Graham	Hubert Roy Ray
Augustus Washington Graham, Jr.	James Thaddeus Reece
William Graves	Charles Abram Roberson
Price Henderson Gwynn, Jr.	William White Rogers
John Brevard Halliburton	Thomas Sampson Royster
Robert March Hanes	Howard Bently Shofner
Haines Hilsman Hargrett	Jesse Richardson Sloan
Vance Henry	Lucius Eugene Stacy
Carlisle Higgins	Brevard Doty Stevenson
Angus James Hodgin	Claude Edward Teague
Frank Bruce Hooker	Robert Linn Van Poole
Frederick William Hossfeld, Jr.	Lingoh Wang
William Emil Hossfeld	Cyrus Richard Wharton
Blake Elliott Isley	John Clark Whitaker
Fairley Patterson James	Robert Watson Winston, Jr.

Bachelors of Science

Walter Carter	Henry Lynch Parish, Jr.
John Burton Clingman	Thomas Bog Slade, Jr.
John Fox Kendrick	Charles Randolph Thomas, Jr.
Robert Clay McLean	Thaddeus Earl Wilkerson, Jr.

Bachelors of Laws

Baxter Lloyd Baker	Edwin Thomas Cansler, Jr.
Lennox Polk McLendon	

Graduates in Pharmacy

Kelly Edwin Bennett	Alexander Grady Webb
Jefferson Davis Whitehead, Jr.	

Masters of Arts

John Napoleon Daily	John Archibald McKay
James Talmage Dobbins	Earl Victor Patterson
Theophilus Randolph Eagles	William Walker Rankin, Jr.
Wesley Critz George	Hubert Roy Ray
John Warton Harris	William Ren. Thomas
William Lewis Jeffries	John Elliott Wood

Master of Science

Charles Wilson Willard

HONORARY DEGREES

Doctor of Laws

William Walton Kitchin

MEDALS, PRIZES AND FELLOWSHIPS

The William Cain Medal in Mathematics: J. B. Scarborough.
The Eben Alexander Prize in Greek: R. O. Huffman.
The Worth Prize in Philosophy: W. W. Rogers.
The Early English Text Society Prize: P. H. Gwynn, Jr.
The Henry R. Bryan Prize in Law: L. P. McLendon.
Prizes in N. C. Colonial History: C. S. Cooke, L. N. Morgan.
The Toch Fellowship in Chemistry: W. L. Jeffries.
The Babbitt Scholarship in Chemistry: V. A. Coulter.

The Le Doux Fellowship in Chemistry: J. T. Dobbins.

Fellowship in Chemistry: A. L. Feild.

The W. J. Bryan Prize in Political Science: J. C. Lockhart.

The Ben Smith Preston Cup: J. L. Orr.

The Bingham Prize: J. C. Busby.

The Freshman Prize in English: W. P. Fuller.

The Mangum Medal: F. P. Barker.

Elected to membership in the *Phi Beta Kappa Society*, 1912: R. O. Huffman, V. A. Coulter, G. L. Carrington, R. C. Journey, F. H. Kennedy, W. A. Kirksey, J. M. Labberton, F. W. Morrison, J. L. Phillips, W. N. Post, D. L. Rights, J. B. Scarborough, J. Townsend.

CERTIFICATES

Civil Engineering: J. B. Clingman, C. R. Thomas, Jr.

Economics: L. Wang.

Education: C. L. Cates.

Electrical Engineering: Walter Carter, R. C. McLean, H. L. Parish, Jr., T. B. Slade, Jr.

English: P. H. Gwynn, Jr., L. N. Morgan, B. D. Stephenson.

French: B. T. Denton, J. H. Rand, W. R. Thomas.

History: C. S. Cooke.

Latin: R. W. Bobbitt, P. H. Gwynn, Jr., J. C. Lanier, Jr., W. W. Rogers, T. S. Royster.

Zoology: W. B. Cobb, J. W. Harris.

STUDENTS (1912-1913)

Graduates

NAME	YEAR	RESIDENCE
Cobb, William Battle, A. B., 1912. Botany, Geology, German, Candidate for A. M.	<i>First,</i>	Chapel Hill.
Cox, Rufus Carson, Ph. B., Elon College, 1903. Education, English, History. Candidate for A. M.	<i>First,</i>	Liberty.
Dobbins, James Talmage, A. B., 1911, A. M., 1912. Chemistry, Physics, Geology. Candidate for Ph. D.	<i>Second,</i>	Yadkinville.
Faires, Rosabelle Simonton, A. M., 1909. German.	<i>Fourth,</i>	Chapel Hill.
George, Wesley Critz, A. B., 1911, A. M., 1912. Zoology, Physiology, Bacteriology. Candidate for Ph. D.	<i>Second,</i>	Elkin.
Graham, James Otto, B. S., Clemson College, 1909. Chemistry, Geology, Physics. Candidate for S. M.	<i>First,</i>	Lake City, S. C.
Gwynn, Price Henderson, Jr., A. B., 1912. Economics, Latin, Philosophy. Candidate for A. M.	<i>First,</i>	Leaksville.
Henry, George Kenneth Grant, A. B., 1900, A. M., 1904, Hamilton College. Latin, Greek, French. Candidate for Ph. D.	<i>Fifth,</i>	Chapel Hill.
Ingram, Mitchell Ray, Economics, French, Education. Candidate for A. B. and A. M.	<i>First,</i>	Taylorsville.
Jeffries, William Lewis, A. B., 1910, A. M., 1912. Chemistry, Physics, Geology. Candidate for Ph. D.	<i>First,</i>	Edgefield, S. C.
Knight, Burke Haywood, A. B., 1911. Chemistry, Zoology, English. Candidate for A. M.	<i>Second,</i>	Williamston.
Lasley, John Wayne, Jr., A. B., 1910, A. M., 1911. Mathematics. Candidate for Ph. D.	<i>Second,</i>	Burlington.
McLendon, Lennox Polk, B. S., 1910, North Carolina College of Agriculture and the Mechanic Arts, LL. B., 1912. English, Philosophy, Economics. Candidate for A. M.	<i>First,</i>	Wadesboro.
McMillan, Thomas Ellwood, A. B., 1911, East Texas Normal College. History, Economics, Education. Candidate for A. M.	<i>First,</i>	Ben Franklin, Tex.
Miller, Herbert Craig, A. B., 1910, Lenoir College. Education, English, Economics. Candidate for A. M.	<i>First,</i>	Newton.
Morrison, Fred Wilson, English, Greek, Mathematics. Candidate for A. B. and A. M.	<i>First,</i>	Spencer.
Rankin, William Walter, Jr., B. E., 1904, North Carolina College of Agriculture and the Mechanic Arts, A. M., 1912. Mathematics, Physics, Education. Candidate for Ph. D.	<i>Second,</i>	Charlotte.
Royster, James Hunt, Education, Economics, Physics. Candidate for A. B. and A. M.	<i>First,</i>	Townsville.

- Royster, Thomas Sampson, *First*, Townsville.
A. B., 1912. Physics, Chemistry, Latin. Candidate for A. M.
- Stacy, Lucius Eugene, Jr., *First*, Shelby.
A. B., 1912. Chemistry, Economics, Physics. Candidate for A. M.
- Stanbury, Walker Adair, *Second*, Chapel Hill.
A. B., 1908, Trinity College. Philosophy.
- Starr, Homer Worthington, *Second*, Chapel Hill.
B. A., 1900, Harvard, M. A., 1901, The University of the South.
English, Economics, History. Candidate for Ph. D.
- Venable, Charles Scott, *Second*, Chapel Hill.
A. B., 1910, A. M., 1911. Chemistry. Candidate for Ph. D.

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Senior Class

- | | | |
|---|----------|--------------------|
| Alderman, Ernest Hamlin, | Arts, | Greensboro. |
| Axley, Lowry, | Arts, | Murphy. |
| Bagwell, James Edgar, | Arts, | Loray. |
| Barbour, Swade Emmett, | Science, | Clayton. |
| Basnight, Stein Hughes, | Arts, | Newbern. |
| Bennett, Paul Archer, | Arts, | Winston-Salem. |
| Berry, Margaret Kollock, | Arts, | Chapel Hill. |
| B. S., 1912, Normal and Industrial College of North Carolina. | | |
| Bivens, Samuel Robert, | Arts, | Monroe. |
| Blalock, David Remus, | Arts, | Rougemont. |
| Boushall, Joseph Dozier, Jr., | Arts, | Raleigh. |
| Bryan, Paul Roby, | Science, | Goldsboro. |
| Busby, John Carroll, | Arts, | Salisbury. |
| Caldwell, Joseph Yonque, | Arts, | Statesville. |
| Carmichael, George, | Arts, | Wilmington. |
| Carrington, George Lunsford, | Arts, | Durham. |
| Carter, Carnie Blake, | Science, | Morganton. |
| Carter, James Washington, | Arts, | Morganton. |
| Coulter, Ellis Merton | Arts, | Connelly Springs |
| Coulter, Victor Aldine, | Science, | Newton. |
| Craig, Gillam, | Arts, | Monroe. |
| Ellington, Kenneth Raynor, | Law, | Clayton. |
| Eulless, Fields Lilborn, | Arts, | Bell Buckle, Tenn. |
| Gray, Robert Frederick, | Arts, | Wadesboro. |
| Hamilton, Alvah L., | Arts, | Atlantic. |
| Harry, Woodfin Grady, | Arts, | Grover. |
| Hatcher, Martin Armstead, | Arts, | Rose Hill. |
| Higdon, Frederick Huffman, | Arts, | Higdonville . |
| Hoke, Clarence Ballew, | Science, | Lenoir. |
| Hoover, Troy Jay, | Arts, | High Point. |
| Huffman, Robert Obediah, | Arts, | Morganton |
| Hunter, John Speight, | Arts, | Greensboro. |
| Ingram, Mitchell Ray, | Arts, | Taylorsville. |
| Isley, Robert Waldon, | Arts, | Liberty. |

Joyner, Elisha Wiley,	Arts,	Nashville.
Jurney, Robert Campbell,	Arts,	Winston-Salem.
Kasey, Watson,	Arts,	Houston, Va.
Kelly, James Clyde,	Arts,	Carthage.
Kennedy, Frank Hunter,	Arts,	Houstonville.
Kirksey, William Albert,	Arts,	Morganton.
Labberton, John Madison,	Science,	Winston-Salem.
McCorkle, Matthew Locke,	Arts,	Newton.
B. S., 1912, Catawba College.		
McIver, John Wesley,	Science,	Sanford.
McKay, Arnold Artemus,	Arts,	Maxton.
Marks, Albert Rosenthal,	Arts,	Newbern.
Mebane, Banks Holt,	Arts,	Spray.
Morrison, Fred Wilson,	Arts,	Spencer.
Norwood, Thomas Hart,	Arts,	Goldsboro.
Perrett, Virgil Addison,	Arts,	Whitsett.
Petteway, Hurbert Connor,	Arts,	Brooksville, Fla.
Petteway, Walter Raleigh,	Arts,	Tampa, Fla.
Phillips, Guy Berryman,	Arts,	Trinity.
Phillips, Jasper Louis,	Science,	Kinston.
Post, William Nicholas,	Arts,	Wilmington.
Ramsaur, Thomas Michael,	Arts,	China Grove.
Rankin, Edgar Ralph,	Arts,	Gastonia.
Rhodes, Leland Brown,	Science,	Chapel Hill.
Rights, Douglas Le Tell,	Arts,	Winston-Salem.
Royster, James Hunt,	Arts,	Townsville.
Scarborough, James Blaine,	Arts,	Mount Gilead.
Shamburger, Lacy Lee,	Arts,	Biscoe.
Sisk, Horace,	Arts,	Waco.
Smith, Peyton McGuire,	Arts,	Elizabeth City.
Spears, Marshall Turner,	Arts,	Lillington.
Stokes, Walter, Jr.,	Arts,	Nashville, Tenn.
Story, Thomas Edgar,	Arts,	Blowing Rock.
Strange, Robert, Jr.,	Arts,	Wilmington.
Summers, Rachel Lawrence,	Arts,	Statesville.
B. L., 1911, Statesville Female College.		
Tillett, William Smith,	Arts,	Charlotte.
Totten, Henry Roland,	Arts,	Yadkin College.
Townsend, Jackson,	Arts,	Marietta.
Walker, Daniel Joshua,	Arts,	Union Ridge.
Wiggins, Archibald Lee Manning,	Arts,	Durham.
Williams, Isham Rowland,	Arts,	Faison.
Wilson, George Pickett,	Arts,	Soudan, Va.
Workman, John Hillary Andrew,	Arts,	Cherryville.

Junior Class

Abernethy, Lonnie Lee,	Science,	Charlotte.
Allen, Reynold Tatum,	Arts,	Kinston.
Angel, Lewis,	Arts,	Franklin.
Applewhite, Blake Deans,	Arts,	Wilson.
Aycock, Benjamin Franklin,	Arts,	Fremont.
Bailey, Isaac Mayo,	Arts,	Smithfield.
Barrier, George Alderman,	Arts,	Dallas, Texas.
Bell, Reuben Holland,	Arts,	Swan Quarter.
Blalock, M. E., Jr.,	Science,	Norwood.
Brownson, Allyn Raymond,	Arts,	Asheville.
Cansler, John Scott,	Arts,	Charlotte.
Carlton, David Hill,	Arts,	Kernersville.
Chambers, Joseph Lenoir, Jr.,	Arts,	Charlotte.
Cobb, Collier, Jr.,	Arts,	Chapel Hill.
Collins, Hubert Walter,	Science,	Holly Springs.
Conroy, Frank Davies,	Arts,	Cullowhee.
Cox, Henry Leon,	Science,	Cullowhee.
Credle, Willie Frontis,	Arts,	Swan Quarter.
Darden, Paul Clifford,	Arts,	Fremont.
Drew, George Frank,	Arts,	Live Oak, Fla.
Dunnagan, Macon Rush,	Arts,	Yadkinville.
Eldridge, James,	Arts,	Dunn.
Feezor, John Gilmer,	Arts,	Silver Hill.
Ferguson, Thomas Wiley,	Arts,	Kendal.
Flume, Arthur James,	Science,	Palatine Bridge, N.Y.
Gentry, John Robert,	Arts,	Waynesville.
Green, Charles Benjamin,	Science,	Kittrell.
Grimsley, Harry Barnette,	Arts,	Greensboro.
Harris, Elisha Carter,	Arts,	Elizabeth City.
Hart, Edwin Badger,	Science,	Winston-Salem.
Hart, Meade,	Arts,	Mooreville.
Hartley, Samuel Grady,	Science,	Yadkin Collge.
Hatcher, John Thomas,	Arts,	Rose Hill.
Holmes, John Albert,	Arts,	Graham.
Holmes, Ralph Wendell,	Arts,	Graham.
Horton, Joseph Lloyd,	Arts,	Farmville.
Hughes, Clinton Kelly,	Arts,	Asheville.
Hughes, Thomas Spurgeon,	Science,	Elizabeth City.
James, Albert Warren,	Arts,	Laurinburg.
Johnston, Lemuel Ray,	Arts,	Haw River.
Jones, Troy Isaiah,	Arts,	Helton.
Kelly, Donald George,	Arts,	Clarkton.
Knowles, Daniel Lamont,	Arts,	Mount Olive.

Lasley, Robert Law,	Arts,	Wentworth.
Leach, Oscar,	Arts,	Rae ford.
Lee, James Grover,	Arts,	Roxboro.
Long, Henry Cyrus, Jr.,	Arts,	Charlotte.
Lord, William Campbell,	Arts,	Wilmington.
McKnight, Roy Bowman,	Arts,	Charlotte.
McWhorter, Davis Lee,	Arts,	Calypso.
Oates, Malcolm Norval,	Science,	Charlotte.
Overcash, James Oliver, Jr.,	Arts,	Statesville.
Owen, Frank Redding,	Arts,	Yadkin College.
Parker, John Lloyd,	Science,	Ahoskie.
Parker, Walter Rea,	Arts,	Goldsboro.
Peel, Elbert Sidney,	Arts,	Williamston.
Perry, Edwin Jerry,	Arts,	Wilson.
Pitt, William Franklin,	Arts,	Macclesfield.
Pratt, Madison Hampton,	Arts,	Madison.
Price, Lemuel Alexander,	Arts,	Unionville.
Pritchett, James Turner,	Arts,	Lenoir.
Pugh, Jesse Forbes,	Arts,	Old Trap.
Ranson, Lucius Henry,	Arts,	Huntersville.
Reed, Ralph Augustus,	Arts,	Winston-Salem.
Robinson, Melvin,	Arts,	Atlantic.
Royall, Kenneth Claiborne,	Arts,	Goldsboro.
Scott, Luther Vernon,	Arts,	Siloam.
Sloan, Harold Thomas,	Arts,	Franklin.
Smith, Junius McRae,	Science,	Charlotte.
Spence, Ralph Case,	Arts,	Kipling.
Strayhorn, Isaac Richerson,	Arts,	Durham.
Strong, George Vaughan,	Arts,	Raleigh.
Stubbs, Harry Murden,	Arts,	Williamston.
Taylor, Carl Duffy,	Science,	Newbern.
Townsend, William Bartel,	Arts,	Red Springs.
Tyson, John Grover,	Arts,	Goldsboro.
Walker, John Alfred,	Science,	Germanton.
Weaver, James Ralph,	Arts,	Chapel Hill.
Webster, Felix Litaker,	Arts,	Wilkesboro.
Whitaker, William Pell, Jr.,	Arts,	Wilson.
Whiting, Seymour Webster,	Arts,	Raleigh.
Willis, Henry Stuart Kendall,	Arts,	High Point.
Wilson, Albert Robert, Jr.,	Arts,	Greensboro.

Sophomore Class

Abernethy, Richard Blythe, Jr.,	Science,	Charlotte.
Anderson, Thomas Harlee,	Arts,	Statesville.
Andrews, Troy Monroe,	Arts,	Chapel Hill.
Armfield, Roy Hanes,	Science,	Greensboro.
Austin, DeWitt Ray,	Science,	Charlotte.
Bailey, Kenneth Hubert,	Arts,	Wakefield.
Bell, Daniel Long,	Arts,	Graham.
Blue, Luther Avon, Jr.,	Arts,	Wilmington.
Bonner, Octavius Blanchard,	Science,	Chapel Hill.
Boseman, Claude Alfred,	Arts,	Enfield.
Boushall, Thomas Callendine,	Arts,	Raleigh.
Brinkley, Robert Loyd,	Arts,	Elm City.
Bryan, Joseph Shepard,	Arts,	Scotts Hill.
Burke, James Preston,	Arts,	Bessemer City.
Byrd, Bacchus Bright,	Science,	Swiss.
Campbell, Edgar Thomas	Arts,	Jessama.
Carr, Austin Heaton,	Arts,	Durham.
Carter, Frank Winfred,	Arts,	Maxton.
Clarke, Wilfong Waldron,	Arts,	Morganton.
Coats, Robert Floyd,	Arts,	Angier.
Conrad, Edwin Fuller,	Arts,	Winston-Salem.
Conrad, Howard Clarence,	Arts,	Pfafftown.
Cook, Robert Edward Lee, Jr.,	Arts,	Tarboro.
Cox, Russell Mills,	Science	Washington.
Craven, Thomas,	Arts,	Charlotte.
Crawford, John Robert, Jr.,	Arts,	Goldsboro.
Cummings, Alfred Ewing,	Arts,	Winston-Salem.
Day, John Tucker,	Arts,	Walkertown.
DeVane, Thomas Ashford,	Science,	Red Springs.
Dickson, James Gillespie,	Arts,	Raeford.
Edgerton, Earlie Dock,	Arts,	Fremont.
Edgerton, Gurney Edvertt,	Arts,	Fremont.
Ellington, Walter Clink,	Science,	Sanford.
Ervin, Carl Edgar,	Science,	Troutman.
Eutsler, George Willard,	Arts,	Greensboro.
Field, Bascom Lee,	Science,	Greensboro.
Fitzgerald, Robert Greeson,	Arts,	Linwood.
Forney, Adger Carter,	Science,	Greensboro.
Foust, Henry Price,	Arts,	Greensboro.
Fuller, Walter Pliny,	Arts,	Bradentown, Fla.
Gaither, Alfred Long,	Arts,	Statesville.
Gilman, Thomas Etheridge,	Arts,	Jacksonville.
Goldston, Walter Leon, Jr.,	Arts,	Goldsboro.

Graves, Henry Lewis,	Arts,	Carthage.
Guthrie, Wilson Gregory,	Arts,	Charlotte.
Harden, Graham,	Arts,	Burlington.
Harding, William Renny,	Arts,	Yadkinville.
Harper, Allen Bostic,	Arts,	Chapel Hill.
Harrell, William Henry,	Science,	Williamston.
Harris, Donald Ryan,	Arts,	Arden.
Hatch, Aubrey Carlisle,	Science,	Mount Olive.
Hicks, William Snelling,	Science,	Raleigh.
Hill, Thomas Fuller,	Arts,	Durham.
Holder, Brantson Beeson,	Arts,	Walkertown.
Holland, Curtis Avent,	Arts,	Greensboro.
Holmes, James Eugene,	Arts,	Graham.
Holton, George Ricks,	Arts,	Winston-Salem.
Hughes, James Boettner,	Science,	Black Mountain.
Huske, William Oliver,	Science,	Fayetteville.
Isley, Chris Leonard, Jr.,	Arts,	Burlington.
Johnston, Charles Louis,	Arts,	Knoxville, Tenn.
Keesler, Edward Yates,	Arts,	Charlotte.
Killefer, David Herbert,	Science,	Bradentown, Fla.
Kornegay, Wade,	Arts,	Chapel Hill.
Kurfees, Clifton Samuel,	Arts,	Germanton.
Lambert, Gabriel deLono,	Arts,	High Point.
Lambert, Henry Dionysus,	Arts,	Angier.
Latham, James Oliver,	Arts,	Huntsville, Ala.
Leak, James Augustus, Jr.,	Arts,	Wadesboro.
Lee, Charles Dennis,	Arts,	Faison.
Lee, Joseph Ira,	Arts,	Four Oaks.
Lilly, Edmund Jones, Jr.,	Science,	Fayetteville.
Lindau, Sigmund Baach,	Science,	Greensboro.
Lipscombe, Sterling Albert,	Arts,	Durham.
Long, Albert Anderson,	Arts,	Farmington.
McCall, Fred Bays,	Arts,	Charlotte.
McCants, John Marion,	Science,	Guthriesville, S. C.
McIntosh, John William,	Arts,	Denver.
Mallett, James Reginald,	Arts,	Salisbury.
Mangum, Charles Preston,	Science,	Kinston.
Manning, Frederick Cain,	Arts,	Durham.
Marshburn, Owen Meredith,	Arts,	Knightsdale.
Martin, Dennis Raymond,	Science,	Elizabeth City.
Martin, Grover Adlai,	Arts,	East Bend.
Martin, Harry Augustus,	Science,	Asheville.
Massey, William Everard,	Science,	Rock Hill, S. C.
Maxwell, William Owen Baldwin,	Arts,	Charlotte.

Mebane, George Allen, Jr.,	Arts,	Spray.
Michal, Thomas Lenoir,	Science,	Canton.
Millender, Charles White,	Arts,	Asheville.
Moore, David Columbus, Jr.,	Arts,	Greenville.
Moser, John William,	Arts,	Rural Hall.
Nance, Ophir Carmal,	Arts,	High Point.
Newsom, Albert Ray,	Arts,	Marshville.
Odom, John Daffin,	Arts,	Rocky Mount.
Oldham, Ralph Waldo,	Science,	Raleigh.
Parker, Benjamin Carl,	Arts,	Monroe.
Parker, Roscar Edward,	Arts,	Selma.
Parrott, Mercer Cranor,	Science,	Kinston.
Paty, B. F.,	Arts,	Tallahoma, Tenn.
Pell, Jesse Shepherd,	Arts,	Spartanburg, S. C.
Pendergraph, Henry Austin,	Arts,	Durham.
Pope, Emmett Judson,	Arts,	Mount Olive.
Prevatt, Joseph Robert,	Arts,	Lumberton.
Price, James Valentine, Jr.,	Arts,	Spray.
Pritchard, William Nelson, Jr.,	Science,	Chapel Hill.
Pruden, William Dossey, Jr.,	Arts,	Edenton.
Ragland, William Trent,	Arts,	Salisbury.
Reid, William Kirkpatrick,	Arts,	Gastonia.
Rhodes, William Henry, Jr.,	Arts,	Chapel Hill.
Robinson, Clarence,	Arts,	Atlantic.
Rowe, Joseph Vance,	Arts,	Small.
Sahag, Leon Maroot,	Science,	Teheran, Persia.
Scott, Samuel Floyd,	Arts,	Haw River.
Sears, Benjamin Belver,	Science,	Como.
Shoaf, Royal Grady,	Arts,	Lexington.
Sinclair, John Frank,	Arts,	Maxton.
Sloan, Charles Austin,	Arts,	Garland.
Smith, Claiborne Thweatt,	Arts,	Scotland Neck.
Smith, Major Thomas,	Arts,	Reidsville.
Spence, Samuel,	Arts,	Kinston.
Spoon, Samuel Clarence,	Science,	Haw River.
Stanford, William Raney,	Arts,	Teer.
Stockard, Tracy,	Science,	Reidsville.
Struthers, James Arthur,	Science,	Grist.
Styron, Arthur Herman,	Arts,	Wilmington.
Tamraz, John Moorhaj,	Science,	Tabriz, Persia.
Taylor, William Raymond,	Arts,	Louisburg.
Thigpen, Frank Lafayette,	Science,	Tarboro.
Thomas, William Wayt,	Arts,	Charlotte.
Thompson, James Alfred,	Arts,	Haw River.

Thompson, William Clark,	Arts,	Lewiston.
Thompson, William Reid,	Arts,	Teer.
Thorp, William Lewis, Jr.,	Arts,	Rocky Mount.
Tilley, Edward Lloyd,	Science,	Bahama.
Turlington, Jesse Eli,	Arts,	Penson.
Twine, Bertram Edward,	Arts,	Edenton.
Walke, William Capehart,	Science,	Avoca.
Walton, Basil Manly,	Arts,	Morganton.
Warlick, William Farel,	Arts,	Reepsville
Weatherly, Albert Thomas,	Arts,	Gorman.
Weeks, Willie Person Mangum,	Arts,	Washington, D. C.
West, Clifton Forrest,	Science,	Dover.
Whitaker, George Betton,	Arts,	Winston-Salem.
Whitaker, Thomas Bascom,	Arts,	Oak Ridge.
Whitaker, Zack Lanier,	Arts,	Oak Ridge.
White, Paul Linwood,	Arts,	Scotland Neck.
Whitfield, James Vivian,	Arts,	Wallace.
Wilkins, John Allen,	Arts,	Draughon.
Williams, Warren Rand,	Science,	Sanford.
Woolcott, Philip,	Arts,	Raleigh.
Yelverton, Richard Becton,	Arts,	Fremont.
Yelverton, Roy Lee,	Arts,	Fremont.

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Freshman Class

Allen, Herbert Edwin,	Science,	Asheville.
Anderson, Andrew Vance,	Arts,	Eagle Rock.
Auld, Benjamin Franklin,	Arts,	Baltimore, Md.
Bailey, Herbert Victor,	Arts,	Neuse.
Barber, Lawrence Corbin,	Arts,	Asheville.
Barnes, Jonas Herring,	Science,	Kenly.
Barnes, Rudolph,	Arts,	Clayton.
Barnes, Vernon Meredith,	Science,	Taylor.
Beckwith, Clifton Warren,	Arts,	Raleigh.
Bird, Orval,	Arts,	Murphy.
Black, Hoke Barrymore,	Arts,	Greenville, S. C.
Black, Lacy William,	Arts,	Ramseur.
Blaine, James Cornaro,	Arts,	Franklin.
Blair, Tully Daniel,	Arts,	Greensboro.
Blalock, Hubert Morse,	Arts,	Raleigh.
Booth, Shepherd Allen,	Arts,	Oxford.
Bourne, Francis Churchill,	Arts,	Asheville.
Bradford, Zebulon Vance,	Arts,	Huntersville.
Bradshaw, Francis Foster,	Arts,	Hillsboro.
Brinkley, Walter Foil,	Arts,	Lexington.

Brinson, George Grady,	Science,	Reelsboro.
Brooks, Robert Plato,	Arts,	Woodsdale.
Bryan, Albert Othel,	Science,	Battleboro.
Buchanan, Marcellus, Jr.,	Arts,	Sylva.
Capehart, William Jonathan,	Arts,	Roxobel.
Capps, Edward Francis,	Arts,	Lucama.
Carmichael, Whitfield Chapman, Jr.,	Arts,	Asheville.
Carter, John Wesley, Jr.,	Arts,	Maxton.
Castelloe, Allen Thurman,	Arts,	Aulander.
Christopher, Fred Oscar,	Arts,	Murphy.
Clark, Ralph Vivian,	Arts,	Clarkton.
Clarkson, Francis Osborne,	Arts,	Charlotte.
Clement, Louis Heyl, Jr.,	Arts,	Salisbury.
Cobb, William Borden,	Arts,	Goldsboro.
Coggin, Charles Lee,	Arts,	Salisbury.
Collett, John Hayes,	Arts,	Salisbury.
Combs, Howard Johnson,	Science,	Columbia.
Cone, Herman,	Arts,	Greensboro.
Conrad, David Homer,	Arts,	Lexington.
Cooper, Frank Hodges,	Arts,	Washington.
Cooper, George Long,	Arts,	Graham.
Cooper, James Allison,	Arts,	Henderson.
Cowan, James Gerald,	Arts,	Asheville.
Cox, James Marmaduke,	Arts,	Norfolk, Va.
Craig, George Winston,	Arts,	Asheville.
Crawford, Farrell Moffatt,	Arts,	Cornelia, Ga.
Crouse, Rush Floyd,	Arts,	Nile.
Currie, Edwin Holt,	Arts,	Raeford.
Cutchin, James Elmer,	Arts,	Whitakers.
Dalton, William Bennett,	Arts,	Madison.
Dancy, Bryan Grimes,	Arts,	Baltimore, Md.
Darden, Douglas Beaman,	Arts,	Fremont.
Davis, Lee Roy,	Arts,	Bladenboro.
Davis, Robert Vernon,	Arts,	Fremont.
Deaton, Fred Hyams,	Arts,	Statesville.
Dees, Julius G.,	Science,	Grantsboro.
Dobbins, Charles Nelson,	Arts,	Yadkinville.
Donnell, Mynar Cecil,	Science,	Greensboro.
Drew, Herbert Jackson,	Arts,	Live Oak, Fla.
Dunbar, Wade Stafford,	Arts,	Oak Ridge.
Duncan, Early Edward Walters,	Arts,	Woodsdale.
Duncan, George Solomon,	Arts,	Holly, Tenn.
Duval, Thurston Forney,	Science,	Whiteville.
Dysart, John Overton,	Arts,	Lenoir.

Edwards, Lee Henry,	Arts,	Holly Springs.
Elliott, Aubrey McCoy,	Arts,	Charlotte.
Elson, Floyd Howard,	Science,	Hendersonville.
English, Charles Eugene,	Science,	Asheville,
Epps, Preston Herschell,	Arts,	Chapel Hill.
Eure, Stephen Edward, Jr.,	Arts,	Taylor.
Everett, William Robert,	Science,	Palmyra.
Fairley, Archie Blair,	Arts,	Monroe.
Farmer, Leslie James,	Arts,	Wilson.
Fearrington, Amos Gregson,	Science,	Edenton.
Fore, Clyde Lathrop,	Science,	Charlotte.
Fulcher, Manly,	Arts,	Atlantic.
Fulton, Jacob, Jr.,	Arts,	Walnut Cove.
Garrett, Wister Cleveland,	Arts,	Julian.
Glenn, John Melvin,	Arts,	Marion.
Goforth, Osborn LeRoy,	Arts,	Mooreville.
Hackler, James Frank,	Arts,	Sparta.
Hamilton, Harvey,	Arts,	Atlantic.
Hancock, Franklin Wills, Jr.,	Arts,	Oxford.
Harding, Henry Grady,	Arts,	Mocksville.
Hardison, Herman Henry,	Arts,	Wadesboro.
Hardison, James Archibald, Jr.,	Arts,	Wadesboro.
Harper, George Arthur,	Science,	Chapel Hill.
Harper, William Troy,	Arts,	Chapel Hill.
Harrell, Beemer Clifford,	Arts,	Marshville.
Harris, Joseph Johnson,	Arts,	Louisburg.
Harrison, James Leftwich,	Arts,	Raleigh.
Hendrix, Joseph Wertz,	Arts,	Concord.
Hester, Hugh Bryan,	Arts,	Hester.
Hogan, Ernest Glen,	Arts,	Chapel Hill.
Holt, John Ransom, Jr.,	Science,	Princeton.
Holt, Walter Lawrence, Jr.,	Science,	Fayetteville.
Homewood, Roy McRae,	Science,	Burlington.
Hooks, James Clarence,	Arts,	Fremont.
Hoover, William John,	Arts,	Bell Buckle, Tenn.
Horton, Albert Graham,	Arts,	Wakefield.
House, Robert Burton,	Arts,	Thelma.
Hudson, Hinton Gardner,	Arts,	Smithfield.
Hunt, Edward Outlaw,	Science,	Oxford.
Hunter, David Wills,	Arts,	Greensboro.
Hunter, William Lewis,	Science,	Fayetteville.
Hunter, Wade Russel,	Arts,	Alexander.
Hurdle, John Harris,	Science,	Reidsville.
Huske, John Manning,	Arts,	Fayetteville.

Brinson, George Grady,	Science,	Reelsboro.
Brooks, Robert Plato,	Arts,	Woodsdale.
Bryan, Albert Othel,	Science,	Battleboro.
Buchanan, Marcellus, Jr.,	Arts,	Sylva.
Capehart, William Jonathan,	Arts,	Roxobel.
Capps, Edward Francis,	Arts,	Lucama.
Carmichael, Whitfield Chapman, Jr.,	Arts,	Asheville.
Carter, John Wesley, Jr.,	Arts,	Maxton.
Castelloe, Allen Thurman,	Arts,	Aulander.
Christopher, Fred Oscar,	Arts,	Murphy.
Clark, Ralph Vivjan,	Arts,	Clarkton.
Clarkson, Francis Osborne,	Arts,	Charlotte.
Clement, Louis Heyl, Jr.,	Arts,	Salisbury.
Cobb, William Borden,	Arts,	Goldsboro.
Coggin, Charles Lee,	Arts,	Salisbury.
Collett, John Hayes,	Arts,	Salisbury.
Combs, Howard Johnson,	Science,	Columbia.
Cone, Herman,	Arts,	Greensboro.
Conrad, David Homer,	Arts,	Lexington.
Cooper, Frank Hodges,	Arts,	Washington.
Cooper, George Long,	Arts,	Graham.
Cooper, James Allison,	Arts,	Henderson.
Cowan, James Gerald,	Arts,	Asheville.
Cox, James Marmaduke,	Arts,	Norfolk, Va.
Craig, George Winston,	Arts,	Asheville.
Crawford, Farrell Moffatt,	Arts,	Cornelia, Ga.
Crouse, Rush Floyd,	Arts,	Nile.
Currie, Edwin Holt,	Arts,	Raeford.
Cutchin, James Elmer,	Arts,	Whitakers.
Dalton, William Bennett,	Arts,	Madison.
Dancy, Bryan Grimes,	Arts,	Baltimore, Md.
Darden, Douglas Beaman,	Arts,	Fremont.
Davis, Lee Roy,	Arts,	Bladenboro.
Davis, Robert Vernon,	Arts,	Fremont.
Deaton, Fred Hyams,	Arts,	Statesville.
Dees, Julius G.,	Science,	Grantsboro.
Dobbins, Charles Nelson,	Arts,	Yadkinville.
Donnell, Mynar Cecil,	Science,	Greensboro.
Drew, Herbert Jackson,	Arts,	Live Oak, Fla.
Dunbar, Wade Stafford,	Arts,	Oak Ridge.
Duncan, Early Edward Walters,	Arts,	Woodsdale.
Duncan, George Solomon,	Arts,	Holly, Tenn.
Duval, Thurston Forney,	Science,	Whiteville.
Dysart, John Overton,	Arts,	Lenoir.

Edwards, Lee Henry,	Arts,	Holly Springs.
Elliott, Aubrey McCoy,	Arts,	Charlotte.
Elsom, Floyd Howard,	Science,	Hendersonville.
English, Charles Eugene,	Science,	Asheville.
Epps, Preston Herschell,	Arts,	Chapel Hill.
Eure, Stephen Edward, Jr.,	Arts,	Taylor.
Everett, William Robert,	Science,	Palmyra.
Fairley, Archie Blair,	Arts,	Monroe.
Farmer, Leslie James,	Arts,	Wilson.
Fearrington, Amos Gregson,	Science,	Edenton.
Fore, Clyde Lathrop,	Science,	Charlotte.
Fulcher, Manly,	Arts,	Atlantic.
Fulton, Jacob, Jr.,	Arts,	Walnut Cove.
Garrett, Wister Cleveland,	Arts,	Julian.
Glenn, John Melvin,	Arts,	Marion.
Goforth, Osborn LeRoy,	Arts,	Mooreville.
Hackler, James Frank,	Arts,	Sparta.
Hamilton, Harvey,	Arts,	Atlantic.
Hancock, Franklin Wills, Jr.,	Arts,	Oxford.
Harding, Henry Grady,	Arts,	Mocksville.
Hardison, Herman Henry,	Arts,	Wadesboro.
Hardison, James Archibald, Jr.,	Arts,	Wadesboro.
Harper, George Arthur,	Science,	Chapel Hill.
Harper, William Troy,	Arts,	Chapel Hill.
Harrell, Beemer Clifford,	Arts,	Marshville.
Harris, Joseph Johnson,	Arts,	Louisburg.
Harrison, James Leftwich,	Arts,	Raleigh.
Hendrix, Joseph Wertz,	Arts,	Concord.
Hester, Hugh Bryan,	Arts,	Hester.
Hogan, Ernest Glen,	Arts,	Chapel Hill.
Holt, John Ransom, Jr.,	Science,	Princeton.
Holt, Walter Lawrence, Jr.,	Science,	Fayetteville.
Homewood, Roy McRae,	Science,	Burlington.
Hooks, James Clarence,	Arts,	Fremont.
Hoover, William John,	Arts,	Bell Buckle, Tenn.
Horton, Albert Graham,	Arts,	Wakefield.
House, Robert Burton,	Arts,	Thelma.
Hudson, Hinton Gardner,	Arts,	Smithfield.
Hunt, Edward Outlaw,	Science,	Oxford.
Hunter, David Wills,	Arts,	Greensboro.
Hunter, William Lewis,	Science,	Fayetteville.
Hunter, Wade Russel,	Arts,	Alexander.
Hurdle, John Harris,	Science,	Reidsville.
Huske, John Manning,	Arts,	Fayetteville.

Huske, Joseph Strange,	Arts,	Fayetteville.
Jarrell, John Frank,	Arts,	Chapel Hill, Tenn.
Jernigan, Herman,	Arts,	Benson.
Johnson, Herschel Vesparian,	Arts,	Charlotte.
Johnston, Julius, Jr.,	Arts,	Yanceyville.
Jones, John Haywood,	Science,	Newbern.
Joyner, Edward Gray,	Arts,	Littleton
Joyner, William Henry,	Science,	Princeton.
Jurney, Van Buren,	Arts,	Olin.
Kanoy, Willie Clarence,	Arts,	Biscoe.
Kent, John Archelaus,	Arts,	Lenoir.
Lackey, Boston McGee,	Arts,	Lincolnton.
Lambeth, Charles Edward,	Arts,	Fayetteville.
Lassiter, James Horace,	Arts,	Rich Square.
Lawrence, Isaac Laurence,	Arts,	Pilot Mountain.
Ledbetter, Allen Thurman	Arts,	Marion.
Lewis, McDaniel,	Arts,	Kinston.
Link, Bob Lee,	Science,	Salisbury.
Linn, Thomas Calvin, Jr.,	Arts,	Salisbury.
Little, Risden Tyler Bennett,	Arts,	Wadesboro.
Long, Giles Mebane,	Arts,	Charlotte.
Love, James Franklin,	Arts,	Lincolnton.
Lupton, Edward Willis,	Science,	Swan Quarter.
McCurry, John Dob,	Arts,	Marion.
McDuffie, Roger Atkinson,	Science,	Greensboro.
McIver, John McMillan, Jr.,	Arts,	Gulf.
McLean, Joseph Boyd,	Arts,	Whitsett.
Mann, Joseph Ernest,	Arts,	New Hill.
Marsh, Edward Baxter,	Arts,	Salisbury.
Marsh, Luther Grier,	Arts,	Marshville.
Marshall, Philip Booe,	Science,	Winston-Salem.
Matthews, Sidney Eure,	Arts,	Winton.
Meckel, George Curtis,	Arts,	Anderson, Ind.
Merritt, Oscar von Kochtitzky,	Arts,	Mount Airy.
Meyer, Louis B.,	Arts,	Enfield.
Milburn, Thomas Yancey,	Science,	Washington, D. C.
Miller, Harry,	Arts,	Stony Point.
Moffitt, Barney Cooper,	Arts,	Sanford.
Moore, Julian Alison,	Science,	Wilmington.
Moore, James Roy,	Arts,	Lenoir.
Morgan, Paul Newhill,	Arts,	Burlington.
Morris, Carlyle,	Arts,	Fremont.
Morton, Marner William,	Arts,	Roxboro.
Murphy, Charles Lee Cole,	Arts,	Salisbury.

Neilson, Robert Wells,	Science,	Winston-Salem.
Norris, Frank Wisconsin,	Arts,	Jacksonville, Fla.
Norwood, Evan Wilkins,	Arts,	Goldsboro.
Odom, Don Franklin,	Arts,	Mount Olive.
Owen, William Mansfield,	Arts,	Welcome.
Page, Robert Newton, Jr.,	Arts,	Biscoe.
Parker, John Merrel,	Arts,	Bradentown, Fla.
Parker, William Baylies,	Science,	Goldsboro.
Patterson, Hazel,	Science,	Burlington.
Pell, William Edward,	Arts,	Winston-Salem.
Pfaff, Claude Rufus,	Arts,	Pfafftown.
Phillips, Paul Vernon,	Science,	Goldsboro.
Pike, Samuel Clark,	Arts,	Liberty.
Pitts, William Barney,	Arts,	Charlotte.
Pleasants, Harvey McKay,	Science,	Rowland.
Powell, Edward Farrior,	Arts,	Whiteville.
Price, Joseph Hampton,	Arts,	Monroe.
Pridgen, Ralph Craven,	Arts,	Tabor.
Proctor, William Isaac,	Arts,	Raleigh.
Ragland, Oscar Holt,	Arts,	Oxford.
*Rand, Isaac William,	Arts,	Smithfield.
Raper, Paul Roberts,	Arts,	Lexington.
Ratcliff, Zerio Olen,	Science,	Pantego.
Ray, James Clyde,	Arts,	Hillsboro.
Reid, Edward Solomon, Jr.,	Science,	Charlotte.
Reid, Samuel Leslie,	Science,	Lowell.
Reyner, Daniel,	Science,	Raleigh.
Roberts, Charles John, Jr.,	Arts,	Lyon.
Robinson, Marius Emmett, Jr.,	Arts,	Goldsboro.
Royall, George Claiborne, Jr.,	Arts,	Goldsboro.
Royster, Beverly Sampson, Jr.,	Arts,	Oxford.
Royster, David Wyeth,	Arts,	Shelby.
Ruffin, Thomas White,	Arts,	Louisburg.
Rymer, William Cecil,	Arts,	Hendersonville.
Schiffman, LeRoy Edgar,	Science,	Greensboro.
Shapiro, Moses,	Arts,	Winston-Salem.
Sharpe, George Graham,	Arts,	Burlington.
Shaver, William Trantham,	Science,	Salisbury.
Sheely, Harry Olen,	Science,	Chapin, S. C.
Shrago, Jacob Philip,	Arts,	Goldsboro.
Siddall, Roger Shore,	Arts,	Sumter, S. C.
Simmons, Enoch Spencer,	Arts,	Washington.
Sims, Luther Raleigh,	Arts,	Lenoir.

*Died September 13, 1912

Smith, Cleveland Lafayette,	Arts,	Indian Trail.
Smith, George Wallace,	Science,	Wilmington.
Smith, William Oliver,	Arts,	Raleigh.
Spencer, Robert Baxter,	Arts,	Hobucken.
Stedman, John Porter, Jr,	Arts,	Oxford.
Stevens, Charles Leary,	Arts,	Indian Town.
Stuart, Charles Edwin,	Arts,	Pembroke.
Sugg, Eugene Sifax,	Science,	Chapel Hill.
Tayloe, David Thomas, Jr.,	Science,	Washington.
Taylor, James Alexander,	Arts,	Oxford.
Temko, Herman Berton,	Science,	Greensboro.
Thompson, Earle Hinson,	Arts,	Red Springs.
Thornton, Malcomb James,	Arts,	Newton Grove.
Thorp, Adam Tredwell,	Science,	Rocky Mount.
Timberlake, Francis Justice,	Arts,	Youngsville.
Tipton, James Cleophas,	Arts,	Burnsville.
Towns, Richard Hugh,	Arts,	Murphy.
Turner, Henry Clay,	Arts,	Norwood.
Umstead, William Bradley,	Arts,	Bahama.
Vaughn, Robert Candler,	Arts,	Winston-Salem.
Veazey, Elbert Lambert,	Arts,	Stem.
Walker, Charles Ernest,	Arts,	Morganton.
Watts, Maurice Dunstan,	Arts,	Williamston.
Weill, Bascom Covington,	Arts,	Rockingham.
Welch, Robert Henry Winbourne, Jr.,	Arts,	Hertford.
Wellons, Robert Andrew,	Arts,	Smithfield.
White, Thomas,	Arts,	Oxford.
Wilkinson, William Stronach, Jr.,	Arts,	Rocky Mount.
Williams, Marshall McDairmid, Jr.,	Science,	Faison.
Wilson, Harry,	Arts,	Durham.
Winslow, Hillary Goode,	Arts,	Hertford.
Wood, Fred Philips,	Arts,	Edenton.
Wood, Julien, Jr.,	Arts,	Edenton.
Wooten, Joseph Ernest,	Arts,	Snow Hill.
Wright, John Laurens,	Arts,	Wilmington.
Wright, Robert Hazelhurst, Jr.,	Arts,	Nashville, Tenn.
Yarborough, Nathaniel Bayard,	Arts,	Cary.
Yarborough, Robert Samuel,	Arts,	Lexington.
Zollicoffer, Allen Caulincourt,	Arts,	Weldon.

Special Students

Barnes, Lelia Leavitt,	Special,	Norfolk, Va.
Beard, Bryce Parker,	Elect. Law,	Salisbury.
Bell, Eric Franklin,	Elect. Phar.,	Dunn.
Bigger, David Andrew,	Elect. Med.,	Rock Hill, S. C.
Black, William Wetmore,	Elect. Law,	Cherryville.
Blackeney, Anthony Kennedy,	Special,	Kershaw, S. C.
Brittain, Basil Frank,	Elect. Law,	Ashboro.
Brockman, Harry Lyndon,	Elect. Med.,	Greensboro.
Bynum, Joseph Nicholas,	Special,	Farmville.
Canaday, Claude Carl,	Elect. Law,	Benson.
Cantwell, Richard Willard,	Elect. Law,	Wilmington.
Cole, Furnifold,	Elect. Law,	Beasley.
Cole, Nathan,	Elect. Law,	Beasley.
Credle, Blount Avery,	Elect. Law,	Wysocking.
Devereux, Robert Eddens,	Elect. Med.,	Spencer.
Edwards, Opie Gray,	Elect. Med.,	Spring Hope.
Edwards, Wiley Benjamin,	Special,	Wilson.
Everett, Victor Elmo,	Elect. Med.,	Plymouth.
Gainey, John White,	Elect. Med.,	Hope Mills.
Gardner, Paris Cleveland,	Elect. Law,	Shelby.
Grimsley, William Tull,	Special,	Greensboro.
Hall, Lucius Coleman,	Elect. Med.,	Webster.
Hamilton, Ammie Burnice,	Elect. Med.,	Atlantic.
Harper, Luby Alexander,	Elect. Law,	Greenville.
Hash, Jackson Bruce,	Elect. Teach.,	Piney Creek.
Hayworth, Roy Washington,	Elect. Med.,	Ashboro.
Henson, John Walker, Jr.,	Elect. Med.,	Leaksville.
Holt, Edwin Nicholas,	Elect. Med.,	Greensboro.
Huff, John Melville,	Elect. Med.,	Henderson.
Jones, Frank Carleton,	Elect. Med.,	Plymouth.
Jones, Leslie Edward,	Elect. Law,	Swan Quarter.
Joyner, Robert Thomas,	Elect. Med.,	Rocky Mount.
Kanner, Abraham Otto,	Elect. Law,	Sanford, Fla.
Lassiter, Henry Grady,	Elect. Med.,	Lasker.
Latham, Joseph Roscoe,	Elect. Med.,	Belhaven.
Lewallen, Alvis Thaddeus,	Elect. Med.,	Ashboro.
Little, Robert Eugene, Jr.,	Special,	Wadesboro.
Love, William Parett, Jr.,	Elect. Med.,	Shelby.
McArthur, David McPherson,	Special,	Red Springs.
McGlohan, Joseph Dixon,	Elect. Med.,	Greenville.
McLeod, Walter Guy,	Special,	Maxton.
Meeks, Marcus Henry, Jr.,	Elect. Law,	Nashville, Tenn.
Merriman, William Leonard,	Elect. Law,	Wilmington.

Moore, Charles Joyce,	Elect. Law,	Washington.
Moore, James Bernice,	Elect. Med.,	Burgaw.
Morrison, Harry K.,	Elect. Med.,	Harrisburg.
Newman, Samuel Raphael,	Elect. Med.,	Washington.
Parshley, Anthony Roberts,	Elect. Min.,	Hertford.
Payne, Lewis Banks,	Elect. Med.,	Norfolk. Va.
Rouse, Walter Bryant,	Elect. Law,	Chapel Hill.
Rousseau, James Parks,	Elect. Med.,	Wilkesboro.
Sabiston, Frank,	Elect. Med.,	Jacksonville.
Sanderford, Harvey Grey,	Elect. Med.,	Creedmoor.
Speight, Elias Carr,	Elect. Med.,	Whitakers.
Stacy, John Benton,	Elect. Law,	Ruffin.
Stroup, Matthew Augustus,	Elect. Law,	Cherryville.
Thomas, Alonzo, Jr.,	Elect. Med.,	Beaufort.
Traywick, Roy Aaron,	Elect. Law,	Marshville.
Wall, LeRoy Byron,	Elect. Law,	Tobaccoville.
Warlick, Henry Clinton, Jr.,	Elect. Med.,	Newells.
Wellons, Benjamin Fletcher,	Elect. Law,	Smithfield.
Williams, Norman Grady,	Elect. Med.,	Franklin.
Williams, William Christopher,	Elect. Med.,	Durham.
Winters, Sellie Robert,	Elect. Journal,	Stem.
Wright, Junius Holt,	Elect. Med.,	Siler City.

Senior Students in Law

Bailey, Karl Braswell, A. B., 1911.	Elm City.
Broadfoot, Charles Wetmore, Jr.,	Fayetteville.
Byrd, William Bobbitt,	Asheville.
Daniel, Watson Louis,	Winton.
Graham, Frank Porter, A. B., 1909.	Charlotte.
Gravely, Lloyd Lee, A. B., 1910, Randolph-Macon College.	Rocky Mount.
Hester, John William, A. B., 1908.	Hester.
Hines, John Edward,	Polloksville.
Johnston, John Thomas,	Chapel Hill.
Lamb, Luke,	Williamston.
McCulloch, Edgar Franklin, Jr., A. B., 1911.	White Oak.
Manning, John Hall, A. B., 1909.	Durham.
Martin, Charles William,	Touchet, Wash.
Mitchell, John Watson,	Winton.
Morris, James Ward, Jr., A. B., 1912.	Tampa, Fla.
Shipp, Robert Johnston,	Newton.

Smathers, William Henry,
 Thomson, Julius Faison,
 A. B., 1909.
 Wall, Robert Winfred,
 Ward, George Hahn,
 Warlick, Wilson Lee,
 Woody, Thomas Brooks,

Waynesville.
 Faison.
 Elk Park.
 Waynesville.
 Newton.
 Bethel Hill.

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Junior Students in Law

Basnight, Stein Hughes,
 Beam, William Speight,
 Bolick, Charles Boone,
 Campbell, William Baugham,
 Canaday, Claude Carl,
 Coffey, Charles Max Donald,
 Cox, George Hubert,
 Crawford, Everett,
 Dortch, Gaston Lewis,
 Farrior, Kenneth McKinnon,
 Gattis, Samuel Mallette, Jr.,
 A. B., 1912.
 Gibbs, Cecil Norwood,
 Glover, John Bell, Jr.,
 Graham, Alexander Hawkins,
 A. B., 1912.
 Gwynn, Price Henderson, Jr.,
 A. B., 1912.
 Harris, Edgar Thomas,
 Hart, Julian Gilliam,
 Henderson, John Jay,
 B. Sc., 1906, M. A., 1907. Ohio Wesleyan.
 Horney, Julius Teague,
 A. B., 1911, Lenoir College.
 Jones, Leslie Edward,
 Jordan, John Richard,
 Kenyon, John Rockwell,
 A. B., 1911, Catawba College.
 King, Robert Ruffin,
 Koonce, Alexander Hamilton,
 A. B., 1893.
 Leatherwood, Joseph Gilmer,
 McKinnon, Henry Alexander,
 A. B., 1912, Trinity College.
 Marks, Albert Rosenthal,
 May, Frederick Hamilton,
 Oates, William Holt,
 Outlaw, Alexander Bate,

Newbern.
 Shelby.
 Franklin.
 Washington.
 Benson.
 North Wilkesboro.
 Winterville.
 Hayesville.
 Goldsboro.
 Chapel Hill.
 Hillsboro.
 Lake Landing.
 Statesville.
 Hillsboro.
 Leaksville.
 Pinetown.
 Winston-Salem.
 West Lafayette, O.
 High Point.
 Swan Quarter.
 Winton,
 Newton.
 Greensboro.
 Chapel Hill.
 Waynesville.
 Maxton.
 Newbern.
 Wendell.
 Hendersonville.
 Elizabeth City.

Page, Thaddeus Shaw,	Biscoe.
Parker, Ezra,	Benson.
Patterson, Earl Victor, A. B., A. M., 1912.	Burlington.
Roberts, Jesse Lee,	Wentworth.
Rousseau, Julius Addison, A. B., 1910, St. Mary's College.	Wilkesboro.
Scott, John Andrew,	Statesville.
Smith, Paris Cecil,	Swannanoa.
Stacy, Horace Edney, A. B., 1910.	Chapel Hill.
Stancill, Jesse Clyde,	Charlotte.
Strong, Charles Miller,	Charlotte.
Swicegood, Louie Alexander,	Salisbury.
Taylor, Walter Frank, A. B., 1911.	Faison.
Tilley, Edward Lloyd,	Bahama.
Tolson, Henry Albert,	Newport.
Walker, Daniel Joshua,	Union Ridge.
West, Furman Erastus,	West's Mill.
West, William Claude,	West's Mill.
Whitney, Floyd Gilbert, A. B., 1911.	Bessemer City.
Wiggins, Archibald Lee Manning,	Durham.

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Special Students in Law

Alexander, Milton T.,	Creswell.
Babbitt, Zebulon Vance,	Bayboro.
Beckham, Virgil Gustavus,	Hiddenite.
Branch, James Robert,	Wilmington.
Burgin, William Olin,	Lexington.
Daniels, Charles Albin,	Newbern.
Davis, Orville Thomas,	Waynesville.
Dorsett, Henry Grady,	Chapel Hill.
Emerson, Alan Chase,	Wilmington.
Garrison, Paul Carmical,	Goldsboro.
Hannah, Harry Burgwyn,	Siler City.
Harkins, Harry Springfield, Jr.,	Asheville.
Horton, Wilkins Peryman,	Durham.
Lindsay, Charles Lee,	Chapel Hill.
Moore, Carl Dana,	Charlotte.
Stiers, Percy Townsend,	Wentworth.
Tyler, Ernest Rudolph,	Roxobel.
Webber, Jesse Clinton,	Earl.
Wells, Loyd Armstrong,	Wilson.
York, Cicero Arthur,	High Point.

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Students in Law (Summer School)

*Alexander, Milton T.,	Creswell.
Battle, John Manning,	Rocky Mount.
A. B., 1911.	
*Broadfoot, Charles Wetmore, Jr.,	Fayetteville.
Buchanan, Carey Parks,	Charlotte.
*Burgin, William Olin,	Lexington.
Burgwin, Kenneth Ogden,	Tarboro.
*Byrd, William Bobbitt,	Asheville.
Cansler, Edwin Thomas, Jr.,	Charlotte.
LL. B., 1912.	
Childs, Wade Hampton,	Lincolnton.
Christie, William McLean,	Jacksonville, Fla.
Clegg, Luther Bynum,	Carthage.
Daughtridge, John Clarence,	Rocky Mount.
Davis, William Cleveland,	Charlotte.
Dees, William Archie,	Pikeville.
A. B., 1911.	
DeLaney, Ernest Stanhope,	Matthews.
A. B., 1910.	
*Dorsett, Henry Grady,	Chapel Hill.
Eason, Joseph Daniels, Jr.,	Stantonsburg.
A. B., 1910.	
Fentress, Baxter Lee,	Summerfield.
A. B., 1910.	
Gravely, Page Keen,	Rocky Mount.
B. L., University of Virginia, 1912.	
Grier, William Pressley,	Charlotte.
A. B., 1909.	
Guess, William Conrad,	Apex.
A. B., 1911.	
Horton, Joseph Lloyd,	Farmville.
Hudson, James Giles,	Spencer.
*Johnston, John Thomas,	Chapel Hill.
Jones, Ovid Winfield,	Winston-Salem.
A. B., 1908, Gullford College, A. M., 1912.	
Kittrell, Robert Gilliam,	Tarboro.
Ph. B., 1899.	
*Koonce, Alexander Hamilton,	Chapel Hill.
A. B., 1893.	
*Lamb, Luke,	Williamston.
*Lindsay, Charles Lee,	Chapel Hill.
*McCulloch, Edgar Franklin, Jr.,	White Oak.
A. B., 1911.	
Mason, George Bason,	Gastonia,
*Morris, James Ward, Jr.,	Tampa, Fla.
A. B., 1912.	
Muldrow, Charles Wesley,	Florence, S. C.
B. S., 1906, The Citadel.	
Murrell, James Warren,	Phoenix,

*Also in regular attendance, Session 1912-1913.

Patterson, James Southerland, A. B., 1910.	Chapel Hill.
Paul, John Daniel,	Pungo.
Ranson, Robert Eugene, A. B., 1901, Erskine College.	Troy.
Rhodes, William Henry,	Riverdale.
Roberson, Hoyt, A. B., 1911.	Farmington.
Ross, Charles,	Lillington.
Small, Walter Lowry, A. B., 1911.	Elizabeth City.
*Swicegood, Louie Alexander,	Salisbury.
Taliaferro, Carol Davis, B. L., 1912, University of Virginia.	Charlotte.
Teague, Claude Edward, A. B., 1912.	Cameron.
Teague, Dossey Battle, A. B., 1910.	Cameron.
Teague, Samuel Farris, A. B., 1910.	Goldsboro.
*Thomson, Julius Faison, A. B., 1909.	Faison.
Trivette, Eugene,	Harmony.
*Ward, George Hahn,	Waynesville.
Wiley, Sam Hamilton,	Salisbury.
Williams, Henry Elliott,	Fayetteville.
Williams, James McBryde,	Godwin.
Williams, Wade Hampton,	Hiddenite.
Zollicoffer, Jere Perry, A. B., 1911.	Henderson.

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Students in Medicine •

Barker, Ebbie Basil,	First,	Trenton.
Belden, Louis deKyser, S. B., 1910.	Second,	Wilmington.
Bell, Baxter Israel,	Second,	Swan Quarter.
Bender, Ernest Linwood,	Second,	Polloksville.
Blue, Alexander McNeill, A. B., 1911.	Second,	Carthage.
Boushall, Joseph Dozier, Jr.,	First,	Raleigh.
Brackett, William Ernest,	Second,	Lawndale.
Burleson, William Brown,	Second,	Plumtree.
Burrus, Thomas Preston,	First,	Fairfield.
Crouch, Auley McRae,	First,	Roberdel.
Eley, Clayton Willard,	First,	Woodland.
Elliott, Forrest,	Second,	Shelby.
Falkener, William White, A. B., 1912.	Second,	Warrenton.

*Also in regular attendance, Session 1912-1913.

Fetzer, Paul Williams,	First,	Reidsville.
Finch, Ollie Edward,	Second,	Kittrell.
Flippin, Eugene Littlejohn,	First,	Mount Airy.
Francis, William Gifford,	Second,	Waynesville.
Greenwood, Adolphus Bart, A. B., 1910.	First,	Asheville.
Griffin, Mark Alexander,	First,	Wingate.
Hege, John Roy,	Second,	Lexington.
House, Wooster Hassell,	Second,	Stokes.
Hunter, Dewitt Talmage,	First,	Matthews.
James, Fairley Patterson, A. B., 1912.	First,	Laurinburg.
Jennings, Olin Henry,	First,	Poors Knob.
Kritzer, Henry Rowland,	First,	Spencer.
Lackey, Franklin Harris,	Second,	Fallston.
Lassiter, Chester Lawrence,	Second,	Wilsons Mills.
Long, Roy Hamilton,	First,	Monroe.
McKay, William Peter,	First,	Red Springs.
McKenzie, Benjamin Whitehead,	First,	Salisbury.
Milliken, James Shepard,	Second,	Pittsboro.
Moore, Allen Hoyt,	First,	Washington.
Morrow, Thomas Lacy,	Second,	Mebane.
Oates, William Clyde,	First,	Grover.
Oppenheimer, William Lehman,	First,	Rocky Mount.
Pate, James Gibson,	First,	Gibson.
Perrel, David Franklin,	First,	Germanton.
Proctor, Ivan Marriott, Jr.,	Second,	Raleigh.
Roberts, Guy Rudisill,	Second,	Lincolnton.
Sample, Robert Cannon, B. S., 1911, Davidson College.	Second,	Hendersonville.
Simmons, James Stevens, B. S., 1911, Davidson College.	Second,	Graham.
Sloan, William Henry, B. S., 1910, Davidson College.	Second,	Garland.
Smith, William Alexander,	First,	Goldsboro.
Starr, Henry Frank,	First,	Salisbury.
Stevens, Ralph Edwin,	Second,	Sanford, Fla.
Summey, Thomas Johnson,	Second,	Brevard.
Sumner, Roy DeWitte,	Second,	Fletcher.
Swindell, Lewis Holmes, Jr.,	First,	Swan Quarter.
Thigpen, Harry Gordon,	First,	Tarboro.
Tolar, Julian Nolley,	Second,	Sanford, Fla.
Uzzle, Edward Foy,	First,	Raleigh.
Vann, Norman St. George,	First,	Charlotte.
Wakeley, William Easton,	Second,	Orange, N. J.
Woodruff, Fred Gwyn,	First,	Sparta.

Students in Pharmacy

Andrews, Richard Homer,	First,	Chapel Hill.
Brantley, Paul,	First,	Wilson.
Butler, Alman Byron,	First,	Clinton.
Canaday, Ralph Clarence,	First,	Benson.
Cordon, Joseph Palamountain,	First,	Clayton.
Cox, Charles Lea,	Second,	Warsaw.
Fisher, Lester,	First,	Concord.
Foster, Caney,	Second,	Asheville.
Foy, Arnold Pugh,	First,	Pollokville.
Heath, David,	First,	Rock Hill, S. C.
Henderson, John Leland,	First,	Hickory.
Higgins, Summey Byrd,	First,	Leicester.
Hilliard, Ralph Parker,	First,	Clayton.
Holland, Henry Odessa,	First,	Apex.
Houston, Robert Stroud,	First,	Monroe.
Jones, Joseph Hunter,	First,	Reidsville.
Kirby, Kenneth Alexander,	First,	Marion.
Koonce, Thomas Ricaud,	First,	Chadbourn.
Lunn, Frank Haliburton,	Second,	Wilkesboro.
Lytch, James Edison,	First,	Rowland.
Marley, Fred Harold,	First,	Lenoir.
Monroe, Alexander Simmons,	First,	Rockingham.
Moore, John Craven,	Second,	Elm City.
Pope, A. Stanley,	First,	Weldon.
Redmon, Herman Leslie,	First,	Marshall.
Rogers, John Lambeth,	First,	Creedmoor.
Ward, Edward Harvie,	First,	Tarboro.
Warren, Junius Campbell,	First,	Benson.
Williams, Frazier,	First,	Goldsboro.
Winstead, Lamar Herbert,	First,	Wilson.
Wolfe, William Samuel,	First,	Mount Airy.
Worthington, Elmer Clifton,	First,	Ayden.

SUMMER SCHOOL STUDENTS, 1912

Abernethy, Frances,
Abernethy, Lucy,
Aiken, Hattie,
Alexander, Hattie,
Alexander, May,
Alspaugh, Stella,
Anderson, Dora Alice,
Arthur, Lucile E.,
Ashburn, Hattie F.,
Atkinson, Katie E.,
Avent, Fannie,
Aycok, William B.,
Baggett, Sara,
Baker, Lelia M.,
Banks, Etta Ruth,
Barker, Floy,
Barkley, Sallie,
Barnhardt, Maggie H.,
Barnhill, Sallie Cooper,
Barrett, Mabel,
Bassett, Claude,
Battle, Sallie Haywood,
Baugham, Maggie S.,
Beam, Mike Seth,
Beam, William Speight,
Benson, Stella,
Best, Mary J.,
Bethea, Curtis,
Bidwell, Beulah,
Birdsong, Heber,
Bivens, Curtis Lee,
Bivens, Samuel Robert,
Black, Mrs. T. B.,
Blake, Irene,
Blalock, Blanche,
Blalock, Hubert M.,
Blanchard, Lawrence E.,
Bobbitt, Bettie,
Bobbitt, Mont Thomas,
Bobbitt, Robert Willis,

Chapel Hill.
Lenoir.
Brevard.
Charlotte.
Asheville.
Winston-Salem.
Lenoir.
Morehead City.
Pleasant Hill.
Enfield.
Jonesboro.
Raleigh.
Tabor.
Fallston.
Eure.
Apex.
Enfield.
Harrisburg.
Enfield.
Rocky Mount
Rocky Mount.
Rocky Mount.
Potecasi.
Henry.
Shelby.
Troy.
Louisburg.
Williamston.
Franklin.
Raleigh.
Cary.
Monroe.
Lowell.
Hope Mills.
Chapel Hill.
Raleigh.
Hertford.
Enfield.
Efland.
Henderson.

Bolick, Mary,
Bost, Mabel,
Bourne, Mary P,
Bowen, Margaret,
Brewer, H. L.,
Bridges, John B.,
Bright, Carrie H.,
Broadfoot, Kate Huske,
Brown, Mary Ethel,
Brown, Mary K.,
Bruton, Winnie D.,
Bryan, Daniel B.,
Bryan, Mrs. D. B.,
Bryan, Mary Shepard,
Buchan, Ethel Lansing,
Buchanan, Anna Meta,
Buck, George C.,
Bulla, Lillie E.,
Bulwinkle, Muriel C.,
Burgess, Blanche,
Burgess, Caleb K.,
Burgess, Cletus,
Burgess, Sam F.,
Burkett, Sallie O.,
Burnette, Mary,
Burns, Ada May,
Burt, Mabel,
Byrd, T. Ethel,
Campbell, Arthur C.,
Campbell, Leslie H.,
Canaday, Emily Jane,
Carlton, Emma Grace,
Carter, David Vance,
Carter, Thomas C.,
Chandler, Bessie B.,
Chandler, Emma,
Clark, Nell B.,
Clayton, Janie H.,
Claytor, Robert Hume,
Clinard, Walter B.,
Coats, Bessie D.,
Cobb, Ellen Delisle,
Cobb, Mallie P.,
Cobb, Margaret E.,

Denver.
Chapel Hill.
Tarboro.
Worthville.
Wingate.
Hope Mills.
Raleigh.
Fayetteville.
Hillsboro.
Albemarle.
Fayetteville.
Chapel Hill.
Chapel Hill.
Raleigh.
Manley.
Laurinburg.
Grimesland.
Sophia.
Dallas.
High Point.
Old Trap.
High Point.
Creswell.
Roxobel.
Jackson.
Maxton.
Trenton.
Morrisville.
Buie's Creek.
Buie's Creek.
Benson.
Warsaw.
Liberty.
Liberty.
Rocky Mount.
Pensacola, Fla.
Pinnacle.
Stem.
Chapel Hill.
High Point.
Smithfield.
Kerr.
Pinetops.
Conetoe.

Cobb, William B.,
Coke, Louise,
Collier, Mayme,
Cooke, Annie Ruth,
Cooke, Mary M.,
Cooper, William L., Jr.,
Coulter, Victor,
Covington, Mary,
Cox, Olivia G.,
Cox, Pearle,
Craver, Harry O.,
Credle, Blount A.,
Cridlebaugh, W. L.,
Crudup, Lillian,
Crumpler, Martha L.,
Dalrump, Janie,
Dameron, Tempe H.,
Daniel, Mary Long,
Darden, Martha E.,
Davis, Isaac P.,
Davis, Lonnie C.,
Davis, Lucy E.,
Day, Jerry,
Dees, William A.,
Deloatch, Willis S.,
Dimmette, Walter,
Dixon, Alice Louise,
Doggett, Eva,
Donnell, Mrs. G. E.,
Dowd, J. E.,
Dowd, Mrs. J. E.,
Duncan, Joseph L.,
Dunford, Mary N.,
Dunford, Ruth,
Dry, Grace D.,
Edgerton, Annie May,
Edwards, Dolly,
Edwards, John F.,
Edwards, Mamie C.,
Eldridge, Bertha E.,
Ellis, Ruby Carolyn,
Evans, Eunice L.,
Evans, Rebecca W.,
Evans, Willietta,

Chapel Hill.
Edenton.
Buie's Creek.
Rich Square.
Rich Square.
Graham.
Newton.
Monroe.
Seven Springs.
Durham.
Lexington.
Wysocking.
Hamlet.
Louisburg.
Selma.
Sanford.
Warrenton.
Airlie.
Rocky Mount.
Milton.
Milwaukee.
Asheville.
Blowing Rock.
Pikeville.
Lasker.
Winston-Salem.
Yadkinville.
Gilkey.
Chapel Hill.
Wallace.
Wallace.
Clayton.
Winston-Salem.
Winston-Salem.
Albemarle.
Kenly.
Spring Hope.
Barnardsville.
Henderson.
Beasley.
Clayton.
Murfreesboro.
Tyner.
Tyner.

Farrior, John A.,
Farrior, Kenneth McK.,
Feild, Alexander L.,
Fenner, Kate Nelson,
Ferguson, Kate,
Ferguson, Mamie Lee,
Finch, Era G.,
Fisher, Clyde O.,
Fitzgerald, Stella,
Fonville, Claude C.,
Fountain, Alma,
Franklin, Earle R.,
Franklin, May Belle,
Franklin, Minnie L.,
Freeman, Alice,
Freeman, J. W.,
Funderburk, Ray,
Garrard, Lorena,
Garrett, Wister C.,
Gattis, Ethel,
Giles, Ola,
Gill, Leila May,
Goodwin, Minnie,
Goodwin, Pearl,
Gorham, Fannie,
Gosney, Minnie S.,
Graham, Belle,
Graham, Mary,
Graham, Violet,
Grantham, Emma,
Green, Allene Benton,
Green, Vergie E.,
Griffin, Lola,
Griffin, Mavis,
Grimes, Alice,
Grinnan, Isabelle R.,
Guess, William C.,
Gulledge, Mary W.,
Hall, Bessie,
Hamrick, Euzelia,
Hare, Frank,
Hargrave, L. L.,
Harper, Annie Lee,
Harper, William T.,

Raleigh.
Chapel Hill.
Raleigh.
Halifax.
Neuse.
Murphy.
Rocky Mount.
Cary.
Micro.
Burlington.
Tarboro.
Merry Oaks.
Raleigh.
Raleigh.
Goldsboro.
Mooresville.
Monroe.
Rougemont.
Julian.
Chapel Hill.
Stem.
Laurinburg.
Apex.
Apex.
Rocky Mount.
Raleigh.
Raeford.
Charlotte.
Richmond, Va.
Newton Grove.
Durham.
Durham.
Wingate.
Rocky Mount.
Coats.
Hendersonville.
Apex.
Albemarle.
Milton.
Shelby.
Angier.
Battleboro.
Chapel Hill.
Chapel Hill.

Harris, L. Maud,	Garysburg.
Harris, Susie S.,	Rocky Mount.
Harrison, James L.,	Raleigh.
Harrison, Mamie,	Pinetown.
Harrison, Neva I.,	Pinetown.
Harrison, Thomas P., Jr.,	Raleigh.
Hassell, Edith,	Edenton.
Hawley, Florence,	Rockingham.
Hawley, Louise,	Rockingham.
Henderson, Mrs. L. D.,	Mount Holly.
Hendley, Chas. J.,	Monroe.
Henry, Vance,	Lilesville.
Herman, Bertha,	Conover.
Herring, Annie F.,	Chapel Hill.
Herring, Clyde,	Delway.
Herring, Margaret,	Chapel Hill.
Herty, Charles H., Jr.,	Chapel Hill.
Hicks, Oscar V.,	Goldsboro.
Holeman, Hallie,	West Durham.
Holeman, Jean,	West Durham.
Holloman, Mina,	Ahoskie.
Holman, Bertha,	Raleigh.
Holman, Mary B.,	Raleigh.
Hooten, Evelyn,	Snow Hill.
Hooten, Maude,	Belhaven.
Horney, Maggie E.,	Farmer.
Howard, Gladys,	Denver.
Howell, Rosalind,	High Point.
Hudson, Bertha,	Dunn.
Hudson, Martha A.,	Smithfield.
Hume, Thos., Jr.,	University, Miss.
Hummel, Magdalene,	Goldsboro.
Hunter, Norfleet,	Oxford.
Hunter, Susie F.,	Alexander.
Hunter, Wade R.,	Alexander.
Huske, Eleanor,	Fayetteville.
Hutchinson, Charlee C.,	Charlotte.
Irwin, Mary L.,	Charlotte.
Ives, Claude L.,	Grifton.
Ivey, Bessie F.,	Raleigh.
Jarvis, Annie B.,	Washington.
Jarvis, Margaret S.,	Washington.
Johnson, Addie Lois,	Pittsboro.
Johnston, Annie M.,	Chapel Hill.

Johnston, Joseph H.,
Jones, Annabel,
Jones, H. B.,
Jones, Laura M.,
Jones, Margaret Cooke,
Jones, Pauline,
Jordan, Sallie M.,
Joyner, Grover H.,
Kelly, Anna Lee,
Kennedy, Mary H.,
King, Annie,
Kiser, Lucy,
Kittrell, Florie E.,
Kittrell, Robert G.,
Koonce, Lucy,
Kornegay, Mrs. L. T.,
Lackey, Pearl,
Lambeth, Mary M.,
Lansdell, Nan,
Leach, Corrie,
Leach, Floy J.,
Ledbetter, Belle,
Ledbetter, John C.,
Lee, Mamie E.,
Lee, Nancy D.,
Leighton, Andrew F.,
Lindsay, Annie O.,
Lindsay, Katie,
Lindsay, Seaton G.,
Lippard, David S.,
Llewellyn, Elizabeth P.,
Long, Jesse Melvin,
Lucas, Elizabeth,
Lunsford, Jennie,
Lynch, Rachel S.,
Lynch, Thomas,
Mallett, Emma J.,
Mallett, Siddie,
Markham, Lela Bell,
Marrow, Henry B.,
Mason, Allie,
Mason, Edith,
Massey, Hilliard J.,
Massey, Iola,

Chapel Hill.
Fletcher.
Wingate.
Franklin.
Raleigh.
Fayetteville.
Sunbury.
Woodland.
Raleigh.
Houstonville.
Denver.
King's Mountain.
Henderson.
Tarboro.
Trenton.
Dover.
King's Mountain.
Guilford College.
Semora.
Raeford.
Cary.
Uree.
Uree.
Dunn.
Raleigh.
Scotland Neck.
Durham.
Durham.
Graham.
Concord.
Wilson's Mills.
Mollie.
Enfield.
Connelly Springs.
Chapel Hill.
Chapel Hill.
Tarboro.
Tarboro.
Durham.
Chapel Hill.
Stanley.
Stanley.
Wakefield.
Durham.

Massey, Jesse E.,
Massey, Mamie,
Massey, Winona G.,
McCallum, Grace,
McCauley, Mrs. Carrie,
McColman, Sallie,
McCullers, Alice,
McEachern, Gladys,
McEachin, Karleton,
McGoogan, Mary S.,
McIntosh, Fannie,
McIntyre, Cara,
McIntyre, Lutie,
McKeown, Howard H.,
McKeown, Laura J.,
McLean, Marion,
McLeod, Isabelle,
McLeod, Walter Guy,
McNeill, Archie,
McNeill, Sallie W.,
McNeill, Robert S.,
McWhorter, Jaynie V.,
Merritt, R. P.,
Miller, Mary Scales,
Mitchell, Mata,
Mizelle, P., Margaret,
Moffatt, Jas., S., Jr.,
Moore, Agnes,
Moore, Alice,
Moore, Fannie B.,
Moore, Laura E. B.,
Moore, Lucile R.,
Moore, Rosa L.,
Moore, William E.,
Moore, William P.,
Morgan, Horace G.,
Moose, Lena E.,
Morris, Bessie,
Morrow, Byrd,
Morrow, Effie,
Morton, Bertha,
Morton, M. Embra,
Moser, John W.,
Moss, Mattie,

Durham.
Durham.
Clayton.
Rowland.
Nashville.
McColl, S. C.
McCullers.
Wilmington.
Maxton.
Rennert.
Denver.
Troy.
Troy.
Stanley.
Stanley.
Fayetteville.
Maxton.
Maxton.
Maxton.
Wade.
Fayetteville.
Morehead City.
Chapel Hill.
Dalton.
Oxford.
Roanoke Rapids.
Due West, S. C.
Farmville.
Charlotte.
Charlotte.
Genoa.
Elm City.
Farmville.
Biltmore.
Fonta Flora.
Middlesex.
Mt. Pleasant.
Stanley.
Rutherfordton.
Rutherfordton.
Morehead City.
Rocky Mount.
Rural Hall.
New London.

Moss, Zebulon V.,
Mullen, Flaud Lee,
Nash, Bettie L.,
Nash, Mary Armond,
Nelson, C. E.,
Norwood, Annie,
Olive, Loula B.,
Olive, Lucius B.,
Oliver, Lannie,
Ormond, Mabel B.,
Orr, James L.,
Orr, Oliver H.,
Outlaw, Myra,
Outlaw, Ruth,
Owen, Henrietta,
Owens, Annie J.,
Page, Florence N.,
Page, Minnie,
Paris, Addie,
Paris, Nemmie G.,
Parish, Katie,
Parker, Grace R.,
Parker, Josie C.,
Parker, Pearl,
Parker, Samuel I.,
Pasmore, Julia,
Paul, John D.,
Payne, Annie B.,
Pearson, Leslie W.,
Penland, Francis A.,
Penny, Celestia A.,
Perry, Fronie,
Perry, Mattie,
Phillips, Ardell,
Pike, Dorothy E.,
Prevost, Robert W.,
Price, Jennie,
Pritchard, William N., Jr.,
Proctor, R. Shirley,
Ranson, Robert E.,
Ratcliffe, Ina,
Ray, Artee,
Ray, James Clyde,
Redford, Laurie,

Clyde.
Iron Station.
Charlotte.
Charlotte.
Murfreesboro.
Raleigh.
Apex.
Apex.
Marietta.
Bath.
Mars Hill.
Brevard.
Kinston.
Kinston.
Wendell.
Wendell.
Morrisville.
Morrisville.
Rocky Mount.
Rocky Mount.
Maxton.
Ahoskie.
Potecasi.
Rougemont.
Monroe.
Cary.
Pungo.
Washington.
Dudley.
Barnardsville.
Raleigh.
Wingate.
Wingate.
Rutherfordton.
Enfield.
Cid.
Matthews.
Chapel Hill.
Denver.
Troy.
Ansonville.
Raleigh.
Hillsboro.
Wake Forest.

Reeks, Josephine,
Rhodes, Cora Lee,
Rhodes, Geo. W.,
Rhodes, W. H.,
Rhodes, W. H., Jr.,
Richardson, Jessie E.,
Richardson, Frances,
Richardson, Nellie,
Roberts, Lena V.,
Robertson, Kathleen,
Robinson, Elizabeth H.,
Rodgers, James O.,
Rogers, George O.,
Rowe, Mary,
Royster, Sallie,
Rudisill, Jacob A.,
Ruffin, Ida,
Ruffin, Mamie,
Russell, Mrs. Lucy P.,
Sawyer, Lida,
Searcy, Corrie,
Setzer, Pearl,
Sharp, Cora I.,
Sharp, Lizzie J.,
Sheetz, Nannie,
Shields, Madge,
Shine, Mary Lee,
Shuford, Clinton L.,
Shuford, N. C.,
Smith, Alma,
Smith, Mildred,
Smith, Sadie L.,
Smyre, Clara R.,
Spaugh, Ethel,
Spencer, Rebert B.,
Springs, Marguerite,
Stacy, Lucius E.,
Starr, Hannah J.,
Steppe, N. F.,
Stewart, Horace,
Stipe, Lula M.,
Stone, Lila May,
Strider, William E.,
Strowd, M. Wellons,

Macon.
Lincolnton.
Newport.
Chapel Hill.
Chapel Hill.
Dover.
Dover.
Selma.
Fries, Va.
Scotland Neck.
Fayetteville.
Mooreville.
Graham.
Conover.
Townesville.
Cherryville.
Battleboro.
Battleboro.
Rockingham.
Belhaven.
Uree.
Hickory.
Madison.
Madison.
Winston-Salem.
Durham
Rocky Mount.
Fairview.
Fairview.
McCullers.
Raleigh.
Fayetteville.
Lincolnton.
Mount Airy.
Hobucken.
Charlotte.
Shelby.
Woodland.
Old Fort.
Unionville.
Winston-Salem.
Apex.
Waco.
Efland.

Sugg, Annie R.,
Sugg, Eugene S.,
Sugg, Mattie B.,
Summerell, Mary,
Sykes, Hettie,
Sykes, Mattie,
Tadlock, Mamie Lee,
Tayloe, Bessie,
Taylor, Berly M.,
Taylor, Kader W.,
Taylor, Mary,
Teague, Claude E.,
Teague, John Samuel,
Teague, Pearl,
Teague, Samuel F.,
Thomas, Alma,
Thomas, Louise V.,
Thomas, Mary P.,
Thompson, Earl,
Thompson, Edna A.,
Thompson, Ida A.,
Tinnin, Mary I.,
Tolson, Henry A.,
Townsend, Jackson,
Trexler, Daisy E.,
Trivette, D. T.,
Tucker, Harry,
Tucker, Lottie,
Tuttle, Dora,
Umstead, Urma,
Vann, Eddie May,
Veasey, Maggie,
Veasey, Ora Alice,
Waddell, Gussie,
Waldo, Effie,
Wall, Cordia,
Wallace, Euna,
Watkins, Sue H.,
Watson, Helen G.,
Watson, Pearla,
Weaver, James R.,
Webster, Annie G.,
Weeks, Mary,
Wellons, Velarie,

Chapel Hill.
Chapel Hill.
Pinetops.
China Grove.
Chapel Hill.
Conway.
Windsor.
Ahoskie.
Raleigh.
Wilson.
Chapel Hill.
Cameron.
Siler City.
Siler City.
Goldsboro.
Jonesboro.
Raleigh.
Cofield.
Mount Holly.
Fayetteville.
Creswell.
Hillsboro.
Newport.
Marietta.
Salisbury.
Harmony.
Madison.
Ruffin.
Lenoir.
Stem.
Como.
Lyons.
Stem.
Ansonville.
Hamilton.
Sophia.
High Point.
Manson.
Murfreesboro.
Murfreesboro.
Chapel Hill.
Burlington.
Newton Grove.
Selma.

Wells, Swann,
West, Annie I.,
Whitaker, Clifton L.,
Whitaker, Clifton L., Jr.,
Whitaker, Margaret,
Whitaker, Susie,
White, Lucy O'B.,
Whitehead, Margaret R.,
Whitley, Marina R.,
Wicker, Valesta,
Wiggins, Alienne,
Williams, May R.,
Williams, Jessie,
Winkler, Claudia A.,
Wise, Nola Mae,
Withers, May,
Woodard, Mary Olive,
Woodward, Mary J.,
Wrenn, Lula C.,
Wright, Gaston A.,
Wright, Hattie,
Wynne, Daisey,
Yeargin, J. T.,
Yeargin, Mrs. J. T.,
Yoder, Fred R.,
Young, Charlotte,
Yount, Marvin E.,

Rocky Mount.
Durham.
Enfield.
Enfield.
Enfield.
Enfield.
Belvidere.
Fayetteville.
Williamston.
Moncure.
Middleburg.
Newton.
Chadbourn.
Winston-Salem.
Barber.
Broadway.
Fairmont.
Cary.
Garner.
Liberty.
Wadesboro.
Williamston.
Monroe.
Monroe.
Hickory.
Asheville.
Hickory.

GENERAL SUMMARY

Boards of Government and Instruction and Other Officers

Trustees	81
Professors	46
Instructors	13
Fellows and Assistants	24

	<hr/>	83
Other Officers		12

THE COLLEGE: Students

Senior Class	75
Junior Class	83
Sophomore Class	153
Freshman Class	234
Special Students	65

	<hr/>	610
THE GRADUATE SCHOOL		23

THE SCHOOL OF LAW:

Students in Law	111
Special Students in Law	20

THE SCHOOL OF MEDICINE:

Second Year Students	26
First Year Students	28

THE SCHOOL OF PHARMACY:

Second Year Students	4
First Year Students	28

	<hr/>	32
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Total Number of Students	850
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Deduct for Names counted twice.....	13
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Total Number of Regular Students	837
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Total Attendance Summer School for Teachers, 1912	463
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Summary by States

North Carolina	785	Texas	2
Florida	13	Alabama	1
South Carolina	12	Indiana	1
Tennessee	9	New Jersey	1
Virginia	4	New York	1
District of Columbia	2	Ohio	1
Maryland	2	Washington	1
Persia	2		

THE ASSOCIATIONS OF THE ALUMNI

THE GENERAL ASSOCIATION

JULIAN S. CARR, President.
WALTER MURPHY, Secretary.

The Alumni Council

ROBERT BINGHAM, *Chairman*, Asheville, N. C.
WALTER MURPHY, *Secretary*, Salisbury, N. C.
J. Y. JOYNER, *Treasurer*, Raleigh, N. C.

1913*

HAYDEN CLEMENT, A. B., Salisbury, N. C.
W. J. ANDREWS, A. B., Raleigh, N. C.
J. C. B. EPHRINGHAUS, A. B., Elizabeth City, N. C.
A. S. BARNARD, A. B., Asheville, N. C.
ROBERT BINGHAM, LL. D., Asheville, N. C.

1914

D. B. TEAGUE, A. B., Raeford, N. C.
J. K. WILSON, A. B., Elizabeth City, N. C.
P. D. GOLD, A. B., Raleigh, N. C.
T. D. WARREN, A. B., Newbern, N. C.
J. O. CARR, A. B., Wilmington, N. C.

1915

W. S. BERNARD, A. M., Chapel Hill, N. C.
J. Y. JOYNER, LL. D., Raleigh, N. C.
W. H. SWIFT, A. B., Greensboro, N. C.
R. H. SYKES, B. L., Durham, N. C.
GEORGE STEPHENS, A. B., Charlotte, N. C.

The plan of organization adopted by the General Association of the Alumni on June 2, 1911, is as follows:—1. A deliberative body to be known as *The General Assembly of the Alumni of the University of North Carolina*, composed of *delegates* from the Local Associations to meet yearly on such day of Commencement Week as has been previously arranged. 2. A directing board of fifteen to be known as *The Alumni Council*, elected by the General Assembly, the officers of which board shall be the officers of the General Assembly. 3. Local

* Term of office expires at end of Spring Term of the University of the year indicated.

Associations to be known by the names of their respective counties and towns. For a printed form of this constitution in detail application should be made to Mr. Wm. S. Bernard, Chapel Hill, N. C.

Membership in the General Association of the Alumni includes all persons who have matriculated at the University of North Carolina in any department except the Summer School and all who are or have been officers of the institution.

LOCAL ASSOCIATIONS

ALAMANCE COUNTY ALUMNI ASSOCIATION, Burlington, N. C.

W. H. Carroll, *President*.

E. S. W. Dameron, *Secretary*.

ANSON COUNTY ALUMNI ASSOCIATION, Wadesboro, N. C.

W. K. Boggon, *President*.

J. E. Hart, M. D., *Secretary*.

BERTIE COUNTY ALUMNI ASSOCIATION, Windsor, N. C.

Francis D. Winston, *President*.

Francis Gillam, *Secretary*.

BUNCOMBE COUNTY ALUMNI ASSOCIATION, Asheville, N. C.

_____*President*.

L. M. Bourne, *Secretary*.

CABARRUS COUNTY ALUMNI ASSOCIATION, Concord, N. C.

L. T. Hartsel, *President*.

J. W. Cannon, Jr., *Secretary*.

CALDWELL COUNTY ALUMNI ASSOCIATION, Lenoir, N. C.

A. A. Kent, *President*.

E. C. Ruffin, *Secretary*.

CATAWBA COUNTY ALUMNI ASSOCIATION, Hickory, N. C.

L. F. Abernethy, *President*.

B. B. Blackwelder, *Secretary*.

CHATHAM COUNTY ALUMNI ASSOCIATION, Pittsboro, N. C.

_____*President*.

J. S. London, *Secretary*.

CRAVEN COUNTY ALUMNI ASSOCIATION, Newbern, N. C.

A. D. Ward, *President*.

William Dunn, Jr., *Secretary*.

CUMBERLAND COUNTY ALUMNI ASSOCIATION, Fayetteville, N. C.

E. J. Hall, LL. D., *President*.

C. G. Rose, *Secretary*.

- DAVIDSON COUNTY ALUMNI ASSOCIATION, Lexington, N. C.
Z. V. Walser, *President*.
J. F. Spruill, *Secretary*.
- DURHAM COUNTY ALUMNI ASSOCIATION, Durham, N. C.
R. H. Sykes, *President*.
J. S. Manning, Jr., *Secretary*.
- EDGECOMBE COUNTY ALUMNI ASSOCIATION, Tarboro, N. C.
J. T. Bridges, *President*.
George Howard, *Vice-President*.
- EDGECOMBE COUNTY ALUMNI ASSOCIATION, Rocky Mount, N. C.
Jos. B. Ramsey, *President*.
R. M. Wilson, *Secretary*.
- FORSYTHE COUNTY ALUMNI ASSOCIATION, Winston-Salem, N. C.
Howard A. Rondthaler, D. D., *President*.
Jas. A. Gray, Jr., *Secretary*.
- GRANVILLE COUNTY ALUMNI ASSOCIATION, Oxford, N. C.
A. W. Graham, *President*.
F. M. Pinnix, *Secretary*.
- GUILFORD COUNTY ALUMNI ASSOCIATION, Greensboro, N. C.
J. A. Brooks, *President*.
Marmaduke Robins, *Secretary*.
- GUILFORD COUNTY ALUMNI ASSOCIATION, High Point, N. C.
W. P. Reagan, *President*.
T. J. Gold, *Secretary*.
- HENDERSON COUNTY ALUMNI ASSOCIATION, Hendersonville, N. C.
Michael Schenck, *President*.
Louis Hesterly, *Secretary*.
- IREDELL COUNTY ALUMNI ASSOCIATION, Mooresville, N. C.
E. W. Brawley, *President*.
A. C. Kerley, *Secretary*.
- JOHNSTON COUNTY ALUMNI ASSOCIATION, Smithfield, N. C.
E. W. Pou, *President*.
H. P. Stevens, *Secretary*.
- LINCOLN COUNTY ALUMNI ASSOCIATION, Lincolnton, N. C.
——— *President*.
K. B. Nixon, *Secretary*.
- MARTIN COUNTY ALUMNI ASSOCIATION, Williamston, N. C.
Sylvester Hassell, *President*.
H. A. Biggs, *Secretary*.

MECKLENBURG COUNTY ALUMNI ASSOCIATION, Charlotte, N. C.

W. F. Harding, *President*.Paul C. Whitlock, *Secretary*.

NEW HANOVER COUNTY ALUMNI ASSOCIATION, Wilmington, N. C.

Marsden Bellamy, *President*.Louis Goodman, *Secretary*.

ORANGE COUNTY ALUMNI ASSOCIATION, Hillsboro, N. C.

John W. Graham, *President*.S. P. Lockhart, *Secretary*.

ORANGE COUNTY ALUMNI ASSOCIATION, Chapel Hill, N. C.

Kemp P. Battle, *President*.P. H. Winston, *Secretary*.

PASQUOTANK COUNTY ALUMNI ASSOCIATION, Elizabeth City, N. C.

J. P. Overman, *President*.J. K. Wilson, *Secretary*.

PERQUIMANS COUNTY ALUMNI ASSOCIATION.

Affiliates with Pasquotank Co. Alum. Ass'n.

PITT COUNTY ALUMNI ASSOCIATION, Greenville, N. C.

_____ *President*.A. J. Moore, *Secretary*.

RANDOLPH COUNTY ALUMNI ASSOCIATION, Ashboro, N. C.

A. C. McAlister, *President*.H. B. Hiatt, M. D., *Secretary*.

RICHMOND COUNTY ALUMNI ASSOCIATION, Rockingham, N. C.

_____ *President*.H. C. Dockery, *Secretary*.

ROBESON COUNTY ALUMNI ASSOCIATION, Red Springs, N. C.

J. L. McMillan, M. D., *President*.Hamilton McMillan, *Secretary*.

ROWAN COUNTY ALUMNI ASSOCIATION, Salisbury, N. C.

Walter Murphy, *President*.A. T. Allen, *Secretary*.

SAMPSON COUNTY ALUMNI ASSOCIATION, Clinton, N. C.

F. B. Johnson, *President*.L. C. Kerr, *Secretary*.

SURREY COUNTY ALUMNI ASSOCIATION, Mount Airy, N. C.

_____ *President*.D. C. Absher, *Secretary*.

UNION COUNTY ALUMNI ASSOCIATION, Monroe, N. C.

W. B. Love, *President*.J. C. M. Vann, *Secretary*.

WAKE COUNTY ALUMNI ASSOCIATION, Raleigh, N. C.

J. Martin Fleming, M. D., *President*.J. B. Cheshire, Jr., *Secretary*.

WAYNE COUNTY ALUMNI ASSOCIATION, Goldsboro, N. C.

_____*President*.S. F. Teague, *Secretary*.

WILSON COUNTY ALUMNI ASSOCIATION, Wilson, N. C.

T. J. Hadley, *President*.F. C. Archer, *Secretary*.

ATLANTA ALUMNI ASSOCIATION, Atlanta, Ga.

Sheppard Bryan, *President*.T. B. Higdon, *Secretary*.

BIRMINGHAM ALUMNI ASSOCIATION, Birmingham, Ala.

Warren Kluttz, *President*.Wade Oldham, *Secretary*.

NEW YORK ALUMNI ASSOCIATION, New York, N. Y.

Augustus Van Wyck, *President*.Francis A. Gudger, *Secretary*.

NORFOLK ALUMNI ASSOCIATION, Norfolk, Va.

J. H. Winston, *President*.G. R. Berkeley, M. D., *Secretary*.

SCHEDULE OF EXAMINATIONS

FIRST DAY	SECOND DAY	THIRD DAY	FOURTH DAY	FIFTH DAY
Economics 3 Educ'n 10 German 2A History 5 History 9 Math. 11 Philosophy 3 Physics 5	Chemistry 1 Economics 4 Educat'n 5, 6 English 9 French 2 Geology 3 German 2B Greek A History 8 Latin 9 Math. 1 Math. 4 Math. 7A	Chemistry 6 English 1 English 14 French A French 4 Greek 6 History 11 Italian 1 Latin 2 Library Adm. Philosophy 6 Physics 1 Physics 15 Pub. Spkg. 3 Spanish 1	Botany 1 Chemistry 5 Economics 5 English 1 English 2 English 5 French 1 French 3 Geology 4 German A Greek 5 Greek 14 History 10 Latin 4 Latin, 7, 8 Math. 7 Math. 15 Philosophy 1 Physics A	Economics 1 English 1 English 10 German 1 Greek 15 History 1 History 3 Latin 3 Latin 10 Math. 2 Math. 3 Math. 13
SIXTH DAY	SEVENTH DAY	EIGHTH DAY	NINTH DAY	TENTH DAY
Botany 2 Chemistry 7 English 3 English 12 Geology 8 German 4 German 6 Greek 3 Math. 16 Physics 4 Pub. Spkg. 2	Chem. 16 Education 7 English 1 English 4 English 16 Geology 7 Greek 1 History 4 Latin 1 Latin 2 Math. 3B Math. 10 Physics 1 Physics 11 Zoology 1	Chemistry 7A Education 3, 4 English 2 Geology 1 German A German 1 German 7 Greek 4 Latin 1 Math. 1 Math. 1 Physics 6	Education 1, 2 English 2 French A German A German 3 Greek 1 History 7 Latin 1 Math. 1 Math. 2 Philosophy 2 Physics 2	Chemistry 2 Chemistry 7B Education 9 English 6 French A French 1 Geology 6 German A Greek 2 History 1 History 15 Latin 2 Math. 1 Math. 3A Math. 8 Math. 17 Philosophy 4

SCHEDULE OF RECITATIONS 1913-1914

	8:30	9:25	9:45	10:40	11:35	12:30	2:30
MON.	A Chem. 7A Educat'n 3, 4 Eng. 2, II Geology 1 German A, I German 1, II German 7 Greek 7 Latin, 1, II, V Math. 1, I, III, V Math. 5 Physics 6 Pub.Sp'k'g. 1, VIII	CHAPEL	B Chem. 2 Chem. 7B Education 9 Eng. 1, IV Eng. 6 French A, II French 1, I French 1, IV Germ. A, IV Greek 2 History 1, I Latin 2, IV Math. 1, VIII, X Math. 3A Math. 8 Math. 17 Philos. 4 Pub.Sp'k'g 1, I	C Chem. 16 Educat'n 7 Eng. 1, III Eng. 4 Geology 7 Greek 1, II History 1, II Latin 1, I, IV Latin 2, II Math. 10 Physics 1, I Zoology 1	D Chem. 1 Econom. 4 Educat'n 5, 6 Eng. 9 French 1, III French 2 Geology 3 German 2B Greek A History 8 Latin 1, III Math. 1, VII, IX Math. 4 Math. 7A Pub.Sp'k'g. 1, VII	E Educat'n 1, 2 Eng. 2, IV French A, IV Germ. A, II Germ. 3 Greek 1, I Hist'y 1, IV History 7 Latin 1, VI, VII Math. 1, II, IV, VI Math. 2, II Philos. 2	Pub. Spk'g. 1, V Laboratory : Chem. 1, I Chem. 3A Chem. 4 Chem. 8 Chem. 9 Physics 1, I Physics 4 Zoology 2
	Tues.		F Botany 2 Chem. 7 Eng. 2, III Eng. 3 Eng. 12 Geology 8 German 4 German 6 Greek A Greek 3 Latin 1, III Math. 1, VII, IX Math. 16 Physics 4 Phb.Sp'k'g. 2	G Botany 1 Chem. 5 Econom. 5 Eng. 1, II, VI Eng. 2, I, V English 5 French 1, II Geology 4 Germ. A, III German 1, III Greek 5 Greek 14 History 1, V History 10 Latin 4 Latin 7, 8 Math. 7 Philos. 1 Physics A Physics 10	H Chem. 6 Eng. 1, V Eng. 14 French A, III French 4 Greek 6 Italian 1 Latin 2, I, III Libr. Adm. Philos. 6 Physics 1, II Physics 15 Pub. Spk'g. 3 Spanish 1	I Econom. 1 Eng. 1, I, VII Eng. 10 French A, I, V Germ. 1, I Greek 15 Hist'ry 1, III History 3 Latin 10 Math. 2, I Math. 3 Math. 13 Pub.Sp'k'g. 1, VI Spanish 2	K Econom. 3 German 2A Greek 1, I History 5 History 9 Latin 1, VI, VII Math. 1, II, IV, VI Math. 11 Philos. 3 Physics 5	Pub. Spk'g. 1, IV Laboratory : Botany 1, I Chem. 1, II Chem. 3, I Chem. 8 Drawing 2, 3 Geology 2 Physics 1, II
WED.	A Educat'n 3, 4 Eng. 2, II Geology 1 German A, I German 1, II German 7 Greek 7 Latin 1, II, V Math. 1, I, III, V Math. 5 Physics 6	CHAPEL	B Chem 2 Chem. 7B Education 9 Eng. 1, IV Eng. 6 French A, II French 1, I French 1, IV German A, IV Greek 2 History 1, I History 15 Latin 2, IV Math. 1, VIII, X Math. 3A Math. 8 Philos. 4	C Chem. 16 Education 7 Eng. 1, III Eng. 4 Eng. 16 Geology 7 Greek 1, II History 1, II History 4 Latin 1, I, IV Latin 2, II Math. 3B Math. 10 Physics 1, I Zoology 1	D Chem. 1 Econom. 4 Educat'n 5, 6 French 1, III French 2 Geology 3 German 2B Greek A Greek 4 History 8 Latin 1, III Latin 9 Math. 1, VII, IX Math. 4 Math. 7A Pub.Sp'k'g. 4	E Educat'n 1, 2 Eng. 2, IV French A, IV Germ. A, II German 3 Greek 1, I Hist'ry 1, IV History 7 Latin 1, VI, VII Math. 1, II, IV, VI Math. 2, II Physics 2	Laboratory : Botany 1, II Chem. 1, III Chem. 3A, Chem. 4 Chem. 8 Drawing 2, 3 Physics 10

SCHEDULE OF RECITATIONS 1913-1914—Continued

	8:30	9:25	9:45	10:40	11:35	12:30	2:30
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FRI.	A Chem. 7A Educat'n 3, 4 Eng. 2, II Geology 1 Germ. A, I Germ. 1, II German 7 Greek 7 Latin 1, II, V Math. 1, I, III, V Math. 5 Physics 6	CHAPEL	B Chem. 2 Chem. 3A Educat'n 9 Eng. 1, IV Eng. 6 French A II French 1, I French 1, IV Germ. A, IV Greek 2 History 1, I History 15 Latin 2, IV Math. 1, VIII, X Math. 3A Math. 8 Math. 17 Philos. 4 Physics 11	C Chem. 16 Chem. 3A Education 7 Eng. 1, III Eng. 4 Eng. 16 Geology 7 Greek 1, II Hist'ry 1, II History 4 Latin 1, I, IV Latin 2, II Math. 3B Math. 10 Physics 1, I Physics 11	D Chem. 1 Econ. 4 Eng. 9 French 1, III French 2 Geology 3 Germ. 2B Greek A Greek 4 History 8 Latin 1, III Latin 9 Math. 1, VII, IX Math. 4 Math. 7A Pub. Spkg. 4	E Educat'n 1, 2 Eng. 2, IV French A, IV German A, II German 3 Greek 1, I Hist'ry 1, IV History 7 Latin 1, VI, VII Math. 1, II, IV, VI Math. 2, II Philos. 2 Physics 2	Pub. Spkg. 1, II Laboratory: Botany 2 Chem. 1, V Chem. 4 Chem. 8 Geology 4 Zoology 1, II Zoology 2
SAT.	F Botany 3 Chem. 5 Eng. 2, III Eng. 3 Eng. 12 Geology 6 German 4 German 6 Math. 16 Physics 14 Zoology 3		G Botany 3 Chem. 5 Drawing 1 Eng. 1, II, VI Eng. 2, I, V Eng. 5 French 1, II French 3 Germ A, III Germ. 1, III History 1, V Philos. 1 Physics A Physics 10 Physics 14 Zoology 3	H Botany 3 Eng. 1, V Eng. 14 French A, III French 4 Italian 1 Latin 2, I, III Philos. 6 Physics 1, II Physics 14 Spanish 1 Zoology 3	I Botany 3 Econ. 1 Eng. 1, I, VII English 10 French A, I, V Germ. 1, I Hist'ry 1, III History 3 Latin 3 Math. 2, I Math. 3 Physics 14 Spanish 2 Zoology 3	K Botany 3 Germ. 2A Physics 14 Zoology 3	

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THE UNIVERSITY OF NORTH CAROLINA

THE ONE HUNDRED AND
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THE CATALOGUE
1913-1914

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CALENDAR

1914

- June 10-July 22* Summer Term for Teachers.
June 18-August 28 Summer Law School.
September 2-5 *Wednesday to Saturday.* Examinations for Removal of Conditions.
September 7-9 *Monday to Wednesday.* Entrance Examinations. Registration.
September 10 *Thursday.* Lectures begin (Fall Term).
October 12 *Monday.* University Day.
November 26 Thanksgiving Day.
December 22 *Tuesday.* Christmas Recess begins (1:30.)

1915

- January 4-5* *Monday and Tuesday.* Registration.
January 6 *Wednesday.* Lectures begin.
January 20-30 Mid-Year Examinations.
February 1 *Monday.* Lectures begin (Spring Term.)
February 22 *Monday.* Washington's Birthday.
May 1 *Saturday.* Selection of Commencement Orators.
May 18-28 Final Examinations.
May 30 *Sunday.* Baccalaureate Sermon.
Sermon before the Y. M. C. A.
May 31 *Monday.* Senior Class Day.
Inter-Society Banquet and Reunions.
June 1 *Tuesday.* Alumni Day.
Meeting of the Board of Trustees.
Inter-Society Debate.
June 2 *Wednesday.* Commencement Day.
Summer Vacation begins.
September 1-4 *Wednesday to Saturday.* Examinations for Removal of Conditions.

PART ONE

FOUNDATION AND GOVERNMENT
TRUSTEES
FACULTY
COMMITTEES

THE UNIVERSITY

FOUNDATION AND GOVERNMENT. The University was established in obedience to the first Constitution of the State, which was adopted in December, 1776. A clause of section XLI declared that "all useful learning shall be duly encouraged, and promoted in one or more universities." The charter was granted by the General Assembly in 1780, the cornerstone of the Old East Building was laid in 1793, and the University was opened in 1795.

The title, preamble, and first section of the Act of incorporation are as follows:

"AN ACT TO ESTABLISH A UNIVERSITY IN THIS STATE."

"WHEREAS in all well regulated Governments, it is the indispensable Duty of every Legislature to consult the Happiness of a rising Generation, and endeavor to fit them for an honorable Discharge of the Social Duties of Life, by paying the strictest attention to their Education: And whereas an University supported by permanent Funds, and well endowed, would have the most direct Tendency to answer the above Purpose:

"I. *Be it therefore enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the Authority of the Same, That, Samuel Johnson, James Iredell, Charles Johnson, Hugh Williamson, Stephen Cabarrus, Richard Dobbs Spaight, William Blount, Benjamin Williams, John Sitgreaves, Frederick Hargett, Robert Snead, Archibald MacLaine, Honourable Samuel Ashe, Robert Dixon, Benjamin Smith, Honourable Samuel Spencer, John Hay, James Hogg, Henry William Harrington, William Barry Grove, Reverend Samuel M'Corkle, Adlai Osborne, John Stokes, John Hamilton, Joseph Graham, Honourable John Williams, Thomas Person, Alfred Moore, Alexander Mebane, Joel Lane, Willie Jones, Benjamin Hawkins, John Haywood, senior, John Macon, William Richardson Davie, Joseph Dixon, William Lenoir, Joseph M'Dowell, James Holland and William Porter, Esquires, shall be and they are hereby declared to be a body politic and corporate to be known and distinguished by the name of The Trustees of the University of North Carolina** and by that name shall have perpetual Succession and a common Seal; and that they the Trustees and their Successors, by the Name aforesaid, or a Major-

*The corporate name has been changed to The University of North Carolina.

ity of them, shall be able and capable in Law to take, demand, receive and possess all Monies, Goods and Chattels that shall be given them for the Use of the said University, and the same apply according to the Will of the Donors, and by Gift, Purchase or Devise to take, have, receive, possess, enjoy and retain to them and their Successors forever, any Lands, Rents, Tenements and Hereditaments, of what Kind, Nature or Quality soever the same may be, in special Trust and Confidence that the same or Profits thereof shall be applied to and for the Use and Purpose of establishing the said University."*

The University is governed by a board of trustees elected by the Legislature and is free from sectionalism, sectarian, or political control. The Governor of the State is *ex-officio* President of the Board of Trustees.

Article IV of the Constitution of 1876 contains the following provisions regarding the University:

"Sec. 6. The General Assembly shall have power to provide for the election of Trustees of the University of North Carolina, in whom, when chosen, shall be vested all the privileges, rights, franchises, and endowments thereof, in anywise granted to or conferred upon the Trustees of said University; and the General Assembly may make such provisions, laws, and regulations from time to time as may be necessary and expedient for the maintenance and management of said University.

"Sec. 7. The General Assembly shall provide that the benefits of the University, as far as practicable, be extended to the youth of the State free of expense for tuition: also all the property which has heretofore accrued to the State, or shall hereafter accrue, from escheats, unclaimed dividends, or distributive shares of the estate of deceased persons, shall be appropriated to the use of the University."

LOCATION. The seat of the University is Chapel Hill, Orange County, twenty-eight miles northwest of Raleigh. Two daily passenger trains run between Chapel Hill and University Junction, a station on the North Carolina Railroad. The site for the institution was selected because of its healthfulness, its freedom from malaria, its supply of pure water, its beautiful scenery, and its central location in the State.

EQUIPMENT. The University campus contains forty-eight acres of land, affording ample grounds for building and for all sorts of athletic sports. The University owns, contiguous to

*Laws of the State of North Carolina, published by James Iredell, Edenton, MDCCXCI.

the campus, five hundred acres of forest lands, which are partly laid off in walks and drives. The University has twenty-five buildings.

The South Building contains one lecture room and thirty living rooms.

The Old East Building contains two lecture rooms and twenty-eight living rooms.

The Old West Building contains two lecture rooms, the Historical Museum, and twenty-seven living rooms.

Person Hall contains the Pharmaceutical Laboratories and three lecture rooms.

Gerrard Hall is used for morning prayers, for mass meetings and other student assemblies, and for public lectures.

Smith Hall contains the Law library and lecture rooms

The New West Building contains the Dialectic Literary Society's Hall, one lecture room and eleven living rooms.

The New East Building contains the Philanthropic Literary Society's Hall, the Geological Laboratory and Museum, the offices of the North Carolina Geological Survey, and fourteen living rooms.

Memorial Hall commemorates the illustrious dead of the University. It is used at Commencement for public exercises.

The Alumni Hall contains the offices of administration, the Physical Laboratories, and nine lecture rooms.

The Carr Building, the gift of Gen. J. S. Carr, contains forty-two living rooms.

The Smith Building contains forty living rooms.

The William Preston Bynum, Jr., Gymnasium is the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893. It is furnished with modern apparatus, swimming pool, baths, lockers, and running track; and contains a trophy room and the office of the Instructor in Physical Training.

The Young Men's Christian Association Building is a valuable adjunct to the work of the Association.

Chemistry Hall contains Chemical Laboratories, lecture rooms, offices for instructors, and store rooms.

The new *Library* building, given by Andrew Carnegie, Esq., has now been in use for six years.

Davie Hall, the Biological Laboratory, contains laboratories and lecture rooms for zoology and botany.

Caldwell Hall, just completed, is used exclusively by the School of Medicine, and contains laboratories, lecture rooms, dissecting rooms, and offices for the instructors.

The New Educational Building, the gift of the Peabody Board, contains lecture rooms, offices, library, and auditorium and is splendidly equipped in every detail.

The Infirmary, a spacious and completely equipped building, is open to all students of the University.

The New Dormitories, *Battle*, *Vance*, and *Pettigrew* Sections, contain seventy-two rooms in suite for the use of students.

Commons contains a dining hall where students obtain board at ten dollars a month. The whole enterprise was made possible through the beneficence of Mrs. Frederick Baker, of New York. A new dining hall, now being built, will be ready for use by the coming Session.

University Inn is used for dormitory purposes, and contains a dining hall where students obtain board at fifteen dollars a month.

The Power House contains the electric lighting plant, the central heating plant, the pumps of the system of water supply, and the rooms of the University Press.

The general equipment has been improved by a thorough system of sewers and baths, a supply of pure water in all the buildings, and hot water heat in all the offices, recitation rooms, reading rooms and living rooms. A filter plant and reservoir have just been added.

COLLEGE YEAR. The College year begins on the second Thursday in September. It is divided into two terms of four and a half months each. Commencement is held on Wednesday before the first Thursday in June. The summer vacation begins on Commencement day and ends on the Wednesday before the second Thursday in September. There is a Christmas recess of about ten days. The twelfth of October (University Day), Thanksgiving Day, and the twenty-second of February (Washington's Birthday) are holidays.

DEGREES. The degrees of Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Bachelor of Laws, and Graduate of Pharmacy are conferred by vote of the Trustees, after the recommendation of the Faculty, upon candidates who have satisfied the requirements of residence and study at the University. Students who are not candidates for a degree may elect any studies they wish, subject to the Committee on Courses, devoting their time entirely to one or two subjects, or selecting groups of such subjects as suit their tastes and purposes.

GRADUATE STUDENTS. Free instruction is given in the College to graduates of colleges and universities. Women are admitted to the higher courses of the University.

PHYSICAL TRAINING. Hearty encouragement is given to athletic sports and to all kinds of physical culture. The athletic field furnishes ample facilities for football and baseball. The Lake Track is admirably adapted for running, bicycling, and general track athletics. Fifteen tennis courts are located on the campus. Systematic exercise in the Bynum Gymnasium under a skilled instructor is required of all students in the College, except Seniors.

GENERAL CULTURE. Chapel Exercises are conducted in Gerrard Hall, with the reading of the scriptures and singing, every weekday morning except Saturday, at 9:25 o'clock. At the same hour timely talks are given by different members of the Faculty. Attendance at this service is required of all undergraduates, unless especially excused. Bible classes for young men are taught in each of the four churches of the village every Sunday. Religious services are held twice a week, or oftener, in each church. A series of sermons is delivered annually by the University Preachers, chosen by the Trustees from the various denominations. Bible lectures are delivered every Sunday morning in Gerrard Hall. The Young Men's Christian Association meets three times a week, for prayer and other services, and conducts a series of Bible courses, which are largely attended by the students.

DISCIPLINE. The University endeavors to make young men manly and self-reliant, and to develop character by educating the conscience. The Faculty may, at their discretion, admon-

ish, suspend, or dismiss students for neglect of duty or for misconduct.

MEDICAL ATTENTION. In order to secure responsible and efficient medical advice and to provide proper attention for the student during sickness the University employs a practicing physician and maintains a well appointed infirmary. The Infirmary is equipped with all necessary conveniences and comforts, is under the immediate supervision of the University Physician, and is provided with an experienced nurse. At the discretion of the University Physician a student may be admitted to its wards and for such services as may be rendered by the staff no charges are made, but should any additional service (consultations, special nurses, operations requiring the attendance of a trained surgeon), recommended by the attending physician and approved by the parent or guardian, be necessary, the student will be required to pay for such services.

TRUSTEES

LOCKE CRAIG, GOVERNOR, President *ex-officio* of the Board of Trustees.

JAMES YADKIN JOYNER, SUPERINTENDENT OF PUBLIC INSTRUCTION, member *ex-officio* of the Board of Trustees.

RICHARD HENRY LEWIS, Secretary.

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1915*

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RICHARD HENRY LEWIS.....	Wake.
ANGUS WILTON MCLEAN.....	Robeson.
ROBERT DIGGS WIMBERLY CONNOR.....	Wake.
ADDISON GOODLOE MANGUM.....	Gaston.
JAMES SMITH MANNING.....	Durham.
JOHN ARCHIBALD PARKER.....	Mecklenburg.
JETER CONNELLY PRITCHARD.....	Buncombe.
THOMAS DAVIS WARREN.....	Craven.
HENRY M. WEIL.....	Wayne.
JOHN KENYON WILSON.....	Pasquotank.

1917

ALEXANDER BOYD ANDREWS.....	Wake.
DAVID COLLIN BARNES.....	Hertford.
JOHN ROBERT WILLIAMS.....	Johnson.
ERIC ALONZO ABERNETHY.....	Orange.
JULIAN SHAKESPEARE CARR.....	Durham.
JOSEPHUS DANIELS	Wake.
AUGUSTUS WASHINGTON GRAHAM.....	Granville.
JOHN BRYAN GRIMES.....	Pitt.

*The legal term of office expires November 30 of the year indicated.

JOHN GEORGE HANNAH, JR.....	Chatham.
LUTHER THOMPSON HARTSELL.....	Cabarrus.
ALFRED WILLIAMS HAYWOOD.....	Alamance.
JOHN WETMORE HINSDALE, JR.....	Wake.
FRANKLIN P. HOBGOOD.....	Granville.
WILLIAM STAMPS HOWARD.....	Edgecombe.
HENRY ARMAND LONDON.....	Chatham.
PAUL JONES LONG.....	Northampton.
GEORGE MCNEILL ROSE.....	Cumberland.
WILLIAM RUFUS EDMONDS.....	Guilford.
JAMES SPRUNT	New Hanover.
GEORGE STEPHENS	Mecklenburg.

1919

J. OSCAR ATKINSON.....	Alamance.
VICTOR SILAS BRYANT.....	Durham.
WILLIAM HYSLOP SUMNER BURGWIN, JR	Northampton.
WILLIAM PRESTON BYNUM, JR.....	Guilford.
JAMES OZBORN CARR.....	New Hanover.
JOHN HENRY DILLARD.....	Cherokee.
JOHN WASHINGTON GRAHAM.....	Orange.
MARMADUKE JONES HAWKINS.....	Warren.
JOHN EDWARD SWAIN.....	Buncombe.
WALTER MURPHY	Rowan.
ROBERT STUART HUTCHISON.....	Mecklenburg.
CHARLES LEE SMITH.....	Wake.
DAVID STERN	Guilford.
ZEB VANCE WALSER.....	Davidson.
CHARLES WHEDBEE	Perquimans.
WILLIAM THORNTON WHITSETT.....	Guilford.
FRANCIS DONNELL WINSTON.....	Bertie.
CHARLES WILLIAMS WORTH.....	New Hanover.
FRED A. WOODWARD.....	Wilson.
EMMETT ROBERSON WOOTEN.....	Lenoir.

1921

THOMAS HALL BATTLE.....	Nash.
JAMES MCENTIRE CARSON.....	Rutherford.
WILLIAM EDMOND BREESE.....	Transylvania.
FREDERICK JACKSON COXE.....	Anson.
WILLIE REID DALTON.....	Rockingham.
CLAUDIUS DOCKERY	Wake.
RUFUS ALEXANDER DOUGHTON.....	Allegheny.
ROBERT CHARLES ELLIS.....	Cleveland.
WILLIAM NASH EVERETT.....	Richmond.

JAMES ALEXANDER GRAY, JR.....	Forsyth.
THOMAS JACKSON GOLD.....	Guilford.
JOHN SPRUNT HILL.....	Durham.
JOHN ALLEN HOLT.....	Guilford.
CHARLES CLARKE LOUGHLIN.....	New Hanover.
GEORGE B. MCLEOD	Robeson.
JOHN MOTLEY MOREHEAD.....	Mecklenburg.
HAYWOOD PARKER	Buncombe.
AUGUSTUS HOBSON PRICE.....	Rowan.
JAMES DICK PROCTOR.....	Robeson.
ALFRED MOORE SCALES.....	Guilford.

COMMITTEES OF THE TRUSTEES

EXECUTIVE COMMITTEE

GOVERNOR LOCKE CRAIG, Chairman.

ALEXANDER B. ANDREWS,	*ROBERT T. GRAY,
*CHARLES B. AYCOCK,	J. BRYAN GRIMES,
*RICHARD H. BATTLE,	EDWARD J. HALE,
VICTOR S. BRYANT,	JAMES Y. JOYNER,
JULIAN S. CARR,	*THOMAS S. KENAN,
JOSEPHUS DANIELS,	RICHARD H. LEWIS,
CLAUDIUS DOCKERY,	JAMES S. MANNING,
JOHN W. GRAHAM,	CHARLES LEE SMITH,
	CHARLES WHEDBEE.

VISITING COMMITTEE

JAMES SPRUNT,	WILLIAM EDMOND BREESE,
	LARRY I. MOORE.

*Dead.

FACULTY

OFFICERS OF ADMINISTRATION

*FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., President.

EDWARD KIDDER GRAHAM, A. M., Dean of the College of Liberal Arts and Acting President.

MARVIN HENDRIX STACY, A. M., Acting Dean of the College of Liberal Arts.

ANDREW HENRY PATTERSON, A. M., Dean of the School of Applied Science.

CHARLES LEE RAPER, Ph. D., Dean of the Graduate School.

LUCIUS POLK MCGEEHEE, A. B., Dean of the School of Law.

ISAAC HALL MANNING, M. D., Dean of the School of Medicine.

EDWARD VERNON HOWELL, A. B., Ph. G., Dean of the School of Pharmacy.

MARCUS CICERO STEPHENS NOBLE, Dean of the School of Education.

OFFICERS OF INSTRUCTION

*FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., Professor of Chemistry.

Student, University of Virginia, 1874-1879; University of Bonn, 1879-1880; A. M., Ph. D., University of Goettingen, 1881; Student, University of Berlin, 1889; LL. D., University of Pennsylvania, 1901; D. Sc., Lafayette College, 1902; LL. D., University of South Carolina, 1905; LL. D., University of Alabama, 1906; Professor of Chemistry, University of North Carolina, 1880-1900; President, *ibid.*, 1900—

KEMP PLUMMER BATTLE, A. M., LL. D., Professor Emeritus of History.

A. B., University of North Carolina, 1849; A. M., *ibid.*, 1852; Tutor in Mathematics, *ibid.*, 1850-1854; LL. D., Davidson College, 1879; President University of North Carolina, 1876-1891; Professor of History, *ibid.*, 1891-1907; LL. D., *ibid.*, 1910; Professor Emeritus of History, *ibid.*, 1907—

*Absent on leave 1913-1914.

WALTER DALLAM TOY, M. A., Professor of the Germanic Languages and Literatures.

M. A., University of Virginia, 1882; Student, University of Leipzig, 1882-1883, University of Berlin, 1883-1885, Collège de France, 1885; Professor of Germanic Languages and Literatures, University of North Carolina, 1885—; Student, University of Berlin, 1910-1911.

WILLIAM CAIN, A. M., Professor of Mathematics.

A. M., North Carolina Military Polytechnic Institute, 1866; Professor of Mathematics and Engineering, Carolina Military Institute, 1874-1879; Professor of Mathematics and Engineering, South Carolina Military Academy, 1882-1889; Professor of Mathematics, University of North Carolina, 1889—

HENRY HORACE WILLIAMS, A. M., B. D., Professor of Philosophy.

A. B., A. M., University of North Carolina, 1883; Professor of Philosophy, Trinity College (N. C.), 1885; B. D., Yale University 1888; Fellow, Harvard University 1889; Professor of Philosophy, University of North Carolina, 1890—

HENRY VANPETERS WILSON, Ph. D., Professor of Zoology.

A. B., Johns Hopkins University, 1883; Fellow, *ibid.*, 1887-1889; Ph. D., *ibid.*, 1888; Professor of Biology, University of North Carolina, 1891-1904; Student, University of Berlin, 1902-1903; Professor of Zoology, University of North Carolina, 1904—

COLLIER CORB, A. M., Professor of Geology and Mineralogy.

A. B., Harvard University, 1889; A. M., *ibid.*, 1894; Assistant in Geology, *ibid.*, 1888-1890; Instructor in Geology, Massachusetts Institute of Technology, 1890-1892; Instructor in Geology, Harvard Summer School, 1891; Assistant Professor of Geology, University of North Carolina, 1892-1893; Professor of Geology and Mineralogy, *ibid.*, 1893—

CHARLES STAPLES MANGUM, A. B., M. D., Professor of Anatomy.

A. B., University of North Carolina, 1891; M. D., Jefferson Medical College, 1894; Assistant and Demonstrator, *ibid.*, 1894-1895; Graduate Student, University of Chicago, 1906; Professor of Anatomy, University of North Carolina, 1896—; Student, Harvard University, 1912, 1913.

EDWARD VERNON HOWELL, A. B., Ph. G., Professor of Pharmacy.

A. B., Wake Forest College, 1892; Ph. G., Philadelphia College of Pharmacy, 1894; Professor of Pharmacy and Dean of the School of Pharmacy, University of North Carolina, 1897—

MARCUS CICERO STEPHENS NOBLE, Professor of Pedagogy.

Student, Davidson College and University of North Carolina; Commandant, Bingham School, 1880-1883; Superintendent of Schools, Wilmington, N. C., 1883-1898; Professor of Pedagogy, University of North Carolina, 1898—; Dean of the School of Education, *ibid.*, 1913—

ISAAC HALL MANNING, M. D., Professor of Physiology.

Student, University of North Carolina, 1882-1886; Assistant in Chemistry, *ibid.*, 1886; M. D., Long Island College of Medicine, 1897; Graduate Student, University of Chicago, 1901, 1903, Harvard University, 1902, 1906; Professor of Physiology, University of North Carolina, 1901—; Dean of the School of Medicine, *ibid.*, 1905—

GEORGE HOWE, Ph. D., Professor of the Latin Language and Literature.

A. B., Princeton University, 1897; A. M., Ph. D., University of Halle, 1903; Student, Oxford University, 1903; Professor of Latin Language and Literature, University of North Carolina, 1903—; Student, American School of Classical Studies at Rome, 1912-1913.

JOSEPH HYDE PRATT, Ph. D., Professor of Economic Geology.

Ph. B., Yale University, 1893; Assistant in Chemistry, *ibid.*, 1894; Assistant in Mining, *ibid.*, 1895; Instructor in Mining, Harvard Summer School, 1895; Ph. D., Yale University, 1896; Instructor in Mineralogy, *ibid.*, 1896-1897; Lecturer on Economic Geology, University of North Carolina, 1899-1904; Professor of Economic Geology, *ibid.*, 1904—; State Mineralogist, 1897-1906; State Geologist, 1906—

CHARLES HOLMES HERTY, Ph. D., Smith Professor of General and Industrial Chemistry.

Ph. B., University of Georgia, 1886; Ph. D., Johns Hopkins University, 1890; Instructor in Chemistry, University of Georgia, 1891-1894; Adjunct Professor of Chemistry, *ibid.*, 1894-1902; Student, University of Zurich and University of Berlin, 1899-1900; Professor of Chemistry, University of North Carolina, 1905—; Dean of the School of Applied Science, *ibid.*, 1908-1911.

NATHAN WILSON WALKER, A. B., Professor of Secondary Education.

A. B., University of North Carolina, 1903; Superintendent of Schools at Ashboro, N. C., 1903-1905; Professor of Secondary Education, University of North Carolina, 1905—; State Inspector of Public High Schools, 1905—

WILLIAM DEBERNIERE MACNIDER, M. D., Professor of Pharmacology.

Assistant in Biology, University of North Carolina, 1899-1900; Assistant in Anatomy, *ibid.*, 1900-1901; M. D., *ibid.*, 1903; Student, University of Chicago, 1906, 1907, 1908; Professor of Pharmacology, University of North Carolina, 1905—

CHARLES LEE RAPER, Ph. D., Professor of Economics.

A. B., Trinity College, (N. C.), 1892; Instructor in Greek and Latin, *ibid.*, 1892-1893; Professor of Latin, Greensboro Female College, 1894-1898; Fellow in History, Columbia University, 1899-1900; Lecturer in History, *ibid.*, 1900-1901; Ph. D., *ibid.*, 1902; Associate Professor of Economics and History, University of North Carolina, 1901-1906; Professor of Economics, *ibid.*, 1906—; Dean of Graduate School, *ibid.*, 1909—

EDWARD KIDDER GRAHAM, A. M., Professor of English.

Ph. B., University of North Carolina, 1898; Librarian, *ibid.*, 1899; Instructor in English, *ibid.*, 1899-1901; Associate Professor of English, *ibid.*, 1901-1904; A. M., Columbia University, 1902; Student, *ibid.*, 1904-1905; Professor of English, University of North Carolina, 1904—; Dean of College of Liberal Arts, *ibid.*, 1909—; Acting President, *ibid.*, 1913-1914.

WILLIAM CHAMBERS COKER, Ph. D., Professor of Botany.

B. S., University of South Carolina, 1894; Ph. D., Johns Hopkins University, 1901; Student, University of Bonn, 1901-1902; Associate Professor of Botany, University of North Carolina, 1902-1907; Professor of Botany, *ibid.*, 1907—

ARCHIBALD HENDERSON, Ph. D., Professor of Pure Mathematics.

A. B., University of North Carolina, 1898; A. M., *ibid.*, 1899; Instructor in Mathematics, *ibid.*, 1898-1902; Student, University of Chicago, 1901; Ph. D., University of North Carolina, 1902; Fellow and Tutor in Mathematics, University College and University of Chicago, 1902-1903; Associate Professor of Mathematics, University of North Carolina, 1902-1908; Professor of Pure

Mathematics, *ibid.*, 1908—; Student, Cambridge University, University of Berlin, the Sorbonne, 1910-1911.

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., Alumni Professor of History.

M. A., University of the South, 1900; Ph. D., Columbia University 1906; Associate Professor of History, University of North Carolina, 1906-1908; Professor of History, *ibid.*, 1908—

ANDREW HENRY PATTERSON, A. M., Professor of Physics.

Ph. B., B. E., University of North Carolina, 1891; A. B., Harvard University, 1892; A. M., *ibid.*, 1893; Instructor in Physics, University of Georgia, 1894-1897; Adjunct Professor of Physics and Electrical Engineering, *ibid.*, 1897-1898; Professor of Physics and Astronomy, *ibid.*, 1898-1908; Student, University of Berlin and Charlottenburg Technische Hochschule, 1905-1906; Student, Cambridge University, 1906; Professor of Physics, University of North Carolina, 1908—; Dean of the School of Applied Science, *ibid.*, 1911—

HENRY MCGILBERT WAGSTAFF, Ph. D., Professor of History.

Ph. B., University of North Carolina, 1899; Professor of Mathematics, Rutherford College, (N. C.), 1900-1902; Ph. D., Johns Hopkins University, 1906; Acting Professor of Economics and History, Alleghany College, 1906-1907; Associate Professor of History, University of North Carolina, 1907-1909; Professor of History, *ibid.*, 1909—

PATRICK HENRY WINSTON, Professor of Law.

Student, University of Texas, 1897-1898, University of North Carolina, 1899-1900; Graduate United States Military Academy, 1905; Student, University of North Carolina School of Law, 1905; Professor of Law, *ibid.*, 1909—; Student, University of Michigan, 1910.

WILLIAM MORTON DEY, Ph. D., Professor of the Romance Languages and Literatures.

B. A., M. A., University of Virginia, 1902; Student in Paris, 1903; A. M., Harvard University, 1904; Austin Teaching Fellow, *ibid.*, 1905-1906; Ph. D., *ibid.*, 1906; Student in Spain and Italy, 1906; Assistant Professor of Romance Languages, University of Missouri, 1906-1909; Professor of Romance Languages, University of North Carolina, 1909—

MARVIN HENDRIX STACY, A. M., Professor of Civil Engineering.

Ph. B., University of North Carolina, 1902; Instructor in Mathematics, *ibid.*, 1902-1906; A. M., *ibid.*, 1904; Student, Cornell University, 1905, 1906, 1911; Associate Professor of Civil Engineering, University of North Carolina, 1906-1910; Professor of Civil Engineering, *ibid.*, 1910—; Acting Dean of the College of Liberal Arts, *ibid.*, 1913-1914.

JAMES FINCH ROYSTER, Ph. D., Professor of English.

A. B., Wake Forest College, 1900; Student, University of Chicago, 1900-1902, University of Berlin, 1902-1903; Acting Instructor, University of Colorado, 1904-1905; Fellow, University of Chicago, 1905-1906; Associate, *ibid.*, 1906-1907; Ph. D., *ibid.*, 1907; Associate Professor of English, University of North Carolina, 1907-1910; Professor of English, *ibid.*, 1910—

LUCIUS POLK MCGEHEE, A. B., Professor of Law.

A. B., University of North Carolina, 1887; Student, School of Law, *ibid.*, 1890-1891; Professor of Law, *ibid.*, 1904-1909; Dean of the School of Law, *ibid.*, 1910—

CHARLES WESLEY BAIN, M. A., LL. D., Professor of Greek.

Student, University of Virginia, 1883-1885; M. A., University of the South, 1895; Professor of Ancient Languages, University of South Carolina, 1898-1910; Professor of Greek, University of North Carolina, 1910—

ATWELL CAMPBELL MCINTOSH, A. M., Professor of Law.

A. B., Davidson College, 1881; A. M., *ibid.*, 1887; Professor of Law, Trinity College (N. C.), 1904-1910; Professor of Law, University of North Carolina, 1910—

HARRY WOODBURN CHASE, Ph. D., Professor of the Philosophy of Education.

A. B., Dartmouth College, 1904; Teacher in the Groveland High School (Mass.), 1904-1908; A. M., Dartmouth College, 1908; Director of the Clinic for Subnormal Children, Clark University, 1909-1910; Ph. D., *ibid.*, 1910; Professor of the Philosophy of Education, University of North Carolina, 1910—

ALVIN SAWYER WHEELER, Ph. D., Professor of Organic Chemistry.

A. B., Beloit College, 1890; Student, University of Chicago, 1895; Student, Cornell University, 1897; A. M., Harvard University,

1897; Assistant in Chemistry, *ibid.*, 1897-1900; Ph. D., *ibid.*, 1900; Associate Professor of Chemistry, University of North Carolina, 1900-1912; Professor of Organic Chemistry, *ibid.*, 1912—; Student, University of Berlin, University of Bonn, Swiss Federal Polytechnic, 1910-1911.

LOUIS ROUND WILSON, Ph. D., Professor of Library Administration.

A. B., University of North Carolina, 1899; Librarian, *ibid.*, 1901—; A. M., *ibid.*, 1902; Ph. D., *ibid.*, 1905; Associate Professor of Library Administration, 1907-1912; Professor of Library Administration, 1912—; Student, Columbia University, 1910.

PARKER HAYWARD DAGGETT, S. B., Professor of Electrical Engineering.

Assistant in Electrical Engineering, Harvard University, 1908-1909; S. B., *ibid.*, 1910; Acting Professor of Electrical Engineering, University of North Carolina, 1910; Associate Professor of Electrical Engineering, *ibid.*, 1910-1913; Professor of Electrical Engineering, *ibid.*, 1913—

JAMES MUNSIE BELL, Ph. D., Professor of Physical Chemistry.

B. A., University of Toronto, 1902; M. A., *ibid.*, 1905; Assistant in Chemistry, Cornell University, 1902-1903; Graduate Scholar in Chemistry, *ibid.*, 1903-1904; Sage Fellow in Chemistry, *ibid.*, 1904-1905; Ph. D., *ibid.*, 1905; Associate Professor of Physical Chemistry, University of North Carolina, 1910-1913; Professor of Physical Chemistry, *ibid.*, 1913—

EDWIN GREENLAW, Ph. D., Professor of English.

A. B., Northwestern University, 1897; A. M., *ibid.*, 1898; A. M., Harvard University, 1903; Ph. D., *ibid.*, 1904; Instructor in English, Northwestern University, 1898-1902, 1904-1905; Instructor in English, University of Chicago, 1904, 1907; Professor of English, Adelphi College, 1905-1913; Professor of English, University of North Carolina, 1913—

LESTER ALONZO WILLIAMS, A. M., Pd. D., Professor of School Administration.

A. B., Dartmouth College, 1903; A. M., New York University, 1909; Pd. D., *ibid.*, 1912; Supervisor of Schools and Principal of High Schools in Massachusetts and New Hampshire, 1903-1912; Supervising Principal, Leonia, N. J., 1913; Lecturer, Brooklyn Institute of Arts and Sciences, 1913; Professor of School Administration, University of North Carolina, 1913—

JAMES BELL BULLITT, A. M., M. D., Professor of Histology and Pathology.

A. B., Washington and Lee University, 1894; A. M., *ibid.*, 1895; M. D., University of Virginia, 1897; Demonstrator of Anatomy, *ibid.*, 1898-1903; Professor of Anatomy and Pathology, University of Mississippi, 1903-1913; Professor of Histology and Pathology, University of North Carolina, 1913—

THOMAS JAMES WILSON, JR., Ph. D., Associate Professor of Latin.

A. B., University of North Carolina, 1894; A. M., *ibid.*, 1896; Ph. D., *ibid.*, 1898; Instructor in Latin and Greek, *ibid.*, 1899-1901; Instructor in Latin, *ibid.*, 1901-1902; Student, University of Chicago, 1903, 1906; Associate Professor of Latin, University of North Carolina, 1902—; Registrar, *ibid.*, 1908—

WILLIAM STANLY BERNARD, A. M., Associate Professor of Greek.

Student, Episcopal Theological Seminary (Va.), 1893-1895; A. B., University of North Carolina, 1900; Librarian, *ibid.*, 1900-1901; Instructor in Greek, *ibid.*, 1901-1906; A. M., *ibid.*, 1904; Associate Professor of Greek, *ibid.*, 1906—; Student, University of Chicago, 1906, Columbia University, 1909, 1910, 1911.

ROBERT BAKER LAWSON, M. D., Associate Professor of Anatomy.

Student, University of North Carolina, 1897-1900; M. D., University of Maryland, 1902; Instructor in Anatomy, University of North Carolina, 1905-1906; Demonstrator in Anatomy, *ibid.*, 1906-1908; Associate Professor of Anatomy, *ibid.*, 1908.

GEORGE MCFARLAND MCKIE, A. M., Associate Professor of Public Speaking.

Graduate, Emerson College of Oratory, 1898; A. B., A. M., University of North Carolina, 1907; Student, Harvard University, 1907-1908; Instructor in English, University of North Carolina, 1899-1908; Associate Professor of Public Speaking, *ibid.*, 1908—

JOHN MANNING BOOKER, Ph. D., Associate Professor of English.

A. B., Johns Hopkins University, 1901; Student, *ibid.*, 1901-1903, 1905-1909; Student, University of Munich, 1904-1905; Student, University of Heidelberg, 1903-1904, 1905, 1909, 1910, 1911; Ph. D., *ibid.*, 1912; Associate Professor of English, University of North Carolina, 1909—

OLIVER TOWLES, Ph. D., Associate Professor of the Romance Languages.

A. B., University of Virginia, 1906; Student, Johns Hopkins University, 1906-1909; Student in France, 1908; Ph. D., Johns Hopkins University, 1912; Associate Professor of Romance Languages, University of North Carolina, 1909—

THOMAS FELIX HICKERSON, A. M., S. B., Associate Professor of Civil Engineering.

Ph. B., University of North Carolina, 1904; Instructor in Mathematics, *ibid.*, 1905-1908; A. M., *ibid.*, 1907; S. B., Massachusetts Institute of Technology, 1909; Associate Professor of Civil Engineering, University of North Carolina, 1910—

KENT JAMES BROWN, Ph. D., Associate Professor of German.

A. B., Dickson College, 1901; Ph. D., University of Pennsylvania, 1905; Student, University of Berlin, 1904-1905; Student, University of Munich, 1909-1911; Assistant in German, University of Pennsylvania, 1902-1904; Instructor in German, State University of Iowa, 1911-1912; Associate Professor of German, University of North Carolina, 1912—

ROBERT LANE JAMES, C. E., Assistant Professor of Drawing.

Student in France, 1907-1908; C. E., Cornell University, 1912; Assistant Professor of Drawing, University of North Carolina, 1913—

ORESTES PEARLE RHYNE, Ph. D., Assistant Professor of German.

A. B., Lenoir College, 1907; A. B., University of North Carolina, 1908; Assistant in German, *ibid.*, 1908-1909; A. M., *ibid.*, 1909; Fellow, Johns Hopkins University, 1911-1913; Ph. D., *ibid.*, 1913; Assistant Professor of German, University of North Carolina, 1913—

GEORGE KENNETH GRANT HENRY, A. M., Instructor in Latin.

A. B., Hamilton College, 1900; A. M., *ibid.*, 1904; Instructor in Mathematics, University of North Carolina, 1908-1909; Instructor in Latin, *ibid.*, 1909—

JOHN GROVER BEARD, Ph. G., Instructor in Pharmacy.

Assistant in Pharmacy, University of North Carolina, 1908-1909; Ph. G., *ibid.*, 1909; Instructor in Pharmacy, *ibid.*, 1909—

VIVIAN LEROY CHRISLER, A. M., Instructor in Physics.

A. B., Piedmont College, 1902; Assistant in Physics, University of Nebraska, 1906-1909; B. S., *ibid.*, 1908; A. M., *ibid.*, 1909; Instructor in Science and Mathematics, Piedmont College, 1909-1910; Instructor in Physics, University of North Carolina, 1910—

GEORGE MARK SNEATH, A. M., Instructor in English.

A. B., Yale University, 1907; A. M., *ibid.*, 1910; Instructor in English, University of North Carolina, 1910—; Student, Harvard University, 1912.

JOHN WAYNE LASLEY, A. M., Instructor in Mathematics.

A. B., University of North Carolina, 1910; Fellow in Mathematics, *ibid.*, 1910-1911; A. M., *ibid.*, 1911; Instructor in Mathematics, *ibid.*, 1911—

DANIEL HUGER BACOT, JR., A. M., Instructor in History.

A. B., College of Charleston, 1908; Assistant in English, *ibid.*, 1908-1909; A. M., *ibid.*, 1909; Student, Harvard University, 1909-1911; A. M., *ibid.*, 1910; Instructor in History, University of North Carolina, 1911—

WILBUR HIGH ROYSTER, A. M., Instructor in Latin.

A. B., University of North Carolina, 1907; Student, Johns Hopkins University, 1907-1908; Student, American School of Classical Studies, Athens, Greece, 1908-1909; Student, Harvard University, 1909-1912; A. M., *ibid.*, 1911; Instructor in Latin, University of North Carolina, 1912—

WESLEY CRITZ GEORGE, A. M., Instructor in Zoology.

A. B., University of North Carolina, 1911; A. M., *ibid.*, 1912; Instructor in Zoology, University of North Carolina, 1912—

EUGENE FRED PARKER, A. M., Instructor in the Romance Languages.

B. S., Norwich University, 1907; A. M., Harvard University, 1909; Instructor in the Romance Languages, Union College, 1909-1911; Instructor in the Romance Languages, University of North Carolina, 1912—

JOHN ELIPHALET SMITH, M. S., Instructor in Geology.

B. S., Oregon Agricultural College, 1902; Student, University of Chicago, 1908, 1909, 1910; M. S., Iowa State College, 1911; Graduate Student and Curators' Fellow, University of Missouri, 1911-1912; Assistant in Botany, Kansas State College, 1908-1910; Instructor in Geology, University of North Carolina, 1912—

WILLIAM LEWIS JEFFRIES, A. M., Instructor in Chemistry.

A. B., University of North Carolina, 1910; Assistant in Chemistry, *ibid.*, 1910-1911; Fellow in Chemistry, *ibid.*, 1911-1913; A. M., *ibid.*, 1912; Instructor in Chemistry, *ibid.*, 1913—

EDGAR RALPH RANKIN, A. B., Instructor in Education.

A. B., University of North Carolina, 1913; Instructor in Education, *ibid.*, 1913—

WILLIAM WALTER RANKIN, JR., B. E., A. M., Instructor in Mathematics.

B. E., North Carolina Agricultural and Mechanical College, 1904; Professor of Mathematics, Fredericksburg College, 1908-1911; A. M., University of North Carolina, 1912; Fellow in Mathematics, *ibid.*, 1912-1913; Instructor in Mathematics, *ibid.*, 1913—

JAMES TALMAGE DOBBINS, A. M., Le Doux Fellow in Chemistry.

CARNIE BLAKE CARTER, B. S., Fellow in Technical Chemistry.

VICTOR CLYDE EDWARDS, A. B., Fellow in Chemistry.

LELAND BROWN RHODES, B. S., Fellow in Organic Chemistry.

AULEY McRAE CROUCH, Assistant in Anatomy.

HENRY ROLAND TOTTEN, A. B., Assistant in Botany.

FRANK DAVIES CONROY, Assistant in Chemistry.

VICTOR ALDINE COULTER, B. S., Assistant in Chemistry.

ARTHUR JAMES FLUME, Assistant in Chemistry.

WILLIAM AUGUSTUS RUDISILL, B. S., Assistant in Chemistry.

JACKSON TOWNSEND, A. B., Assistant in Chemistry.

JOHN WESLEY McIVER, S. B., Assistant in Electrical Engineering.

JOHN MARCELLUS STEADMAN, JR., A. M., Assistant in English.

ELDRED OSCAR RANDOLPH, A. B., Assistant in Geology.

HENRY FRANK STARR, Assistant in Histology.

JOHN ROBERT GENTRY, Assistant in the Library.

JESSE FORBES PUGH, Assistant in the Library.

WILLIAM RAYMOND TAYLOR, Assistant in the Library.

FRANK HODGES COOPER, Assistant in the Library.

JAMES EUGENE HOLMES, Assistant in the Library.

ADOLPHUS BART GREENWOOD, A. B., Assistant in Pharmacology.

JAMES BLAINE SCARBOROUGH, A. B., Fellow in Mathematics.
HUBERT WALTER COLLINS, Assistant in Surveying.
EDWIN FULLER CONRAD, Assistant in Physics.
BASCOM LEE FIELD, Assistant in Physics.
WILLIAM RENNY HARDING, Assistant in Physics.

OTHER OFFICERS

WALTER DALLAM TOY, M. A., Secretary of the Faculty.
LOUIS ROUND WILSON, Ph. D., Librarian.
NAN SPOTSWOOD STRUDWICK, B. L. S., Assistant Librarian.
LOUISE RICHARDSON, A. B., Assistant Librarian.
ROBERT BAKER LAWSON, M. D., Director of the Gymnasium.
WILLIAM PELL TAYLOR, Assistant in the Gymnasium.
CARL DUFFY TAYLOR, Assistant in the Gymnasium.
JULIUS ALGERNON WARREN, Treasurer and Bursar.
EDGAR RALPH RANKIN, A. B., Secretary of the North Carolina
Debating Union.
CHARLES THOMAS WOOLLEN, Proctor.
THOMAS JAMES WILSON, JR., Ph. D., Registrar.
WILLIAM WALTER RANKIN, A. M., Recorder of Absences. -
FRANK PORTER GRAHAM, A. B., General Secretary of the
Young Men's Christian Association.

STANDING COMMITTEES OF THE FACULTY

The President is a member *ex-officio* of all committees.
EXECUTIVE. Acting President Graham; Professors Herty,
Patterson, Stacy, Bain.
AUDITING. Professors Cain, Toy.
ATHLETICS. Professors Herty, Mangum, Henderson, Win-
ston, Howell.
CATALOGUE. Professors Howe, Bain, Daggett.
COMMONS. Professors Toy, McKie, Wheeler.
LIBRARY. Professors Raper, Coker, Royster, Dey.
PUBLICATIONS. Professors Royster, Hamilton, L. R. Wilson.
Coker, Walker.
UNIVERSITY MAGAZINE. Professors Cobb, Bain, Booker.

PUBLIC LECTURES. Professors Henderson, Bain, McGehee, MacNider, Coker.

DEBATES. Professors H. H. Williams, Raper, Bernard.

SELF-HELP. Professors Stacy, Hickerson, Bell.

UNIVERSITY PRESS ASSOCIATION. Professor Royster.

UNIVERSITY SERMONS. Professors Toy, Raper, McKie.

ALUMNI ORGANIZATIONS. Professors Bernard, T. J. Wilson, Patterson; Mr. E. R. Rankin.

GRADUATE SCHOOL. Acting President Graham; Professors Raper, Chase, Wagstaff.

ENTRANCE CERTIFICATES. Professors Walker, Hamilton, Royster, Hickerson, Daggett.

SCHEDULES. Professors T. J. Wilson, Stacy.

LIBRARY APPROPRIATIONS. Acting President Graham; Professors Raper, H. V. Wilson.

COURSES OF STUDY. Professors Stacy, Patterson, Bain, Howe.

COMMENCEMENT PROGRAM. Acting President Graham; Professors Pratt, Henderson, Howe, Hamilton.

MCNAIR LECTURES. Acting President Graham; Professors Herty, Coker, Henderson, H. H. Williams.

ABSENCES. Professors Stacy, T. J. Wilson; Mr. W. W. Rankin.

ADVANCED STANDING. Professors T. J. Wilson, Howe, Chase, Daggett.

UNIVERSITY EXTENSION. Acting President Graham; Professors L. R. Wilson, Stacy, Patterson, Walker, Raper, Noble, Cobb, Chase.

ENTRANCE CONDITIONS. Professors Bain, Daggett.

GROUNDS AND BUILDINGS. Professors Coker, Howe, Cobb.

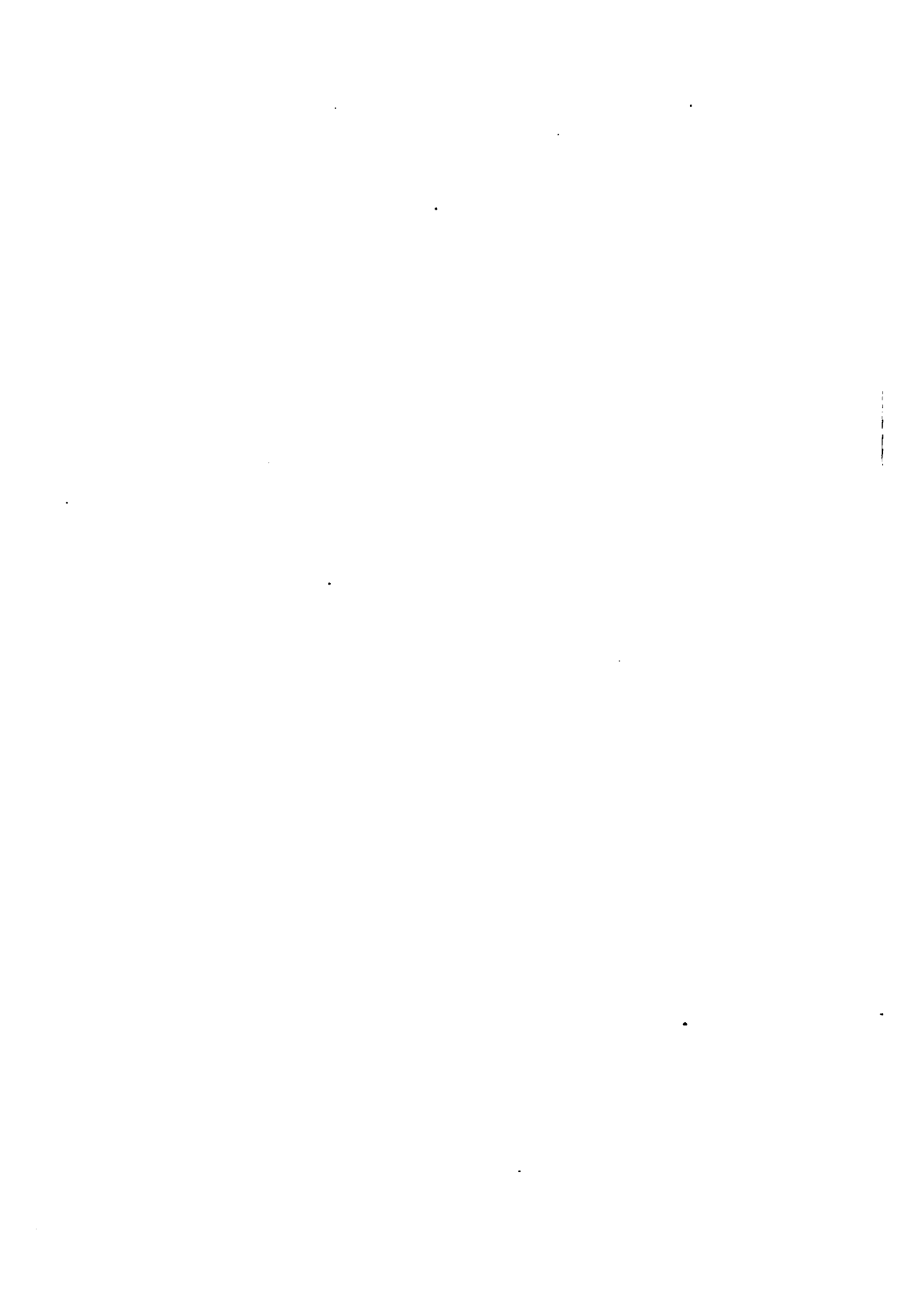
CHAPEL. Professors Patterson, Stacy, Bell.

ADVISERS. Professor Stacy.

CURRICULUM. Professors Howe, Chase, Coker, Dey, Stacy.

PART TWO

**THE COLLEGE OF LIBERAL ARTS
THE SCHOOL OF APPLIED SCIENCE
THE SCHOOL OF EDUCATION
THE GRADUATE SCHOOL**



THE COLLEGE OF LIBERAL ARTS

There are three courses of instruction outlined in The College of Liberal Arts. The object of these courses is to provide a general, well-rounded, liberal education. The first two years of each allow but little election of studies. Beginning with the Junior year the election is wider, and a student can devote himself, to a large extent, to such special lines of study as he may prefer, although there are certain general restrictions designed to guard against too narrow a specialization. The first course, requiring both Greek and Latin, corresponds to the old classical course. The second course is a combination of ancient and modern languages and science. The third course is largely scientific. All of these courses lead to the one degree of Bachelor of Arts, and they are so balanced as to make the work equally difficult and worthy.

ADMISSION

Admission Into the Freshman Class

Candidates for admission into the Freshman Class are received by examination or by certificates from accredited schools.

Entrance examinations are held in September. Arrangements have been made with certain schools in the State whereby examinations for admission may be held in May, also, at the schools. The University will accept the uniform entrance examination papers of the Association of Colleges and Preparatory Schools of the Southern States, provided such papers are properly vouched for and sent sealed to the University for grading. Candidates for admission by examination must report at 9 A. M., *Monday, September 7, 1914*, to the Registrar, who will appoint time and place for examination.

Students who present certificates of work accomplished at preparatory schools and colleges may be admitted without examination, provided the certificates are approved. The right to examine, however, is reserved, when such a course is deemed necessary. Certificates must be made out on the printed forms furnished on application to the Registrar, and should be sent in

as early as possible in the summer vacation. They must be submitted for approval to the Committee on Entrance Certificates in the Alumni Building during the period of registration (*September 7, 8, 9, 1914*).

Subjects Accepted for Entrance

The complete list of subjects accepted for entrance is as follows:

*English <i>a, b, c</i> ,	3. units
History <i>a, b, c</i> ,	3. units
Mathematics <i>a, b, c, d</i> ,	3.5 units
Greek <i>a, b, c</i> ,	3. units
Latin <i>a, b, c, d, e</i> ,	4.7 units
French <i>a, b</i> ,	3. units
German <i>a, b</i> ,	3. units
Spanish,	2. units
Botany,	1. unit
Chemistry,	1. unit
Physics,	1. unit
Zoology,	1. unit
Drawing,	1. unit
Civics, .....	.5 unit
Physiography .....	.5 unit
Physiology, .....	.5 unit

It will be noticed that each subject has a valuation by units. A unit means a definite amount of a subject satisfactorily completed in a reasonable length of time. For example, one unit in History means the satisfactory completion of a standard text book in English or United States History in a period of study continuing through an entire High School session; one-half unit in Solid Geometry means the completion of the four books of Solid Geometry in about one-half a session; the fourteen units mentioned below correspond to the four years of work in a good High School.

Unconditioned entrance to the undergraduate departments of the University requires a total of 14 units selected from the list above. A candidate, however, who desires to pursue any one of the regular courses leading to a Bachelor's degree must make his selection from the list of accepted subjects ac-

*For specific requirements in each of the subjects in this list, see page 34.

cord with the course to be pursued after entrance. Thus, the undergraduate course requiring Greek, Latin, Mathematics, and English necessitates the selection on the part of the candidate of a specified number of units in each of these branches (see below). The same is true, also, of entrance to all other courses.

The following tables indicate the requirements for entrance to each of the three courses leading to the degree of Bachelor of Arts (see page 39).

For entrance to group 1:

English <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
History <i>a</i> or <i>b</i> ,	2. units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
Greek <i>a</i> and <i>b</i> ,	2. units
Latin <i>a</i> , <i>b</i> , <i>c</i> , and <i>d</i> ,	3.7 units
Elective .....	.3 unit

For entrance to group 2:

English <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
History <i>a</i> or <i>b</i> ,	2. units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
Latin <i>a</i> , <i>b</i> , <i>c</i> , and <i>d</i> ,	3.7 units
French <i>a</i> or German <i>a</i> ,	2. units
Elective .....	.3 unit

For entrance to group 3:

English <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
History <i>a</i> or <i>b</i> ,	2. units
Mathematics <i>a</i> , <i>b</i> , and <i>c</i> ,	3. units
French <i>a</i> ,	2. units
German <i>a</i> ,	2. units
Science	1. unit
Elective	1. unit

At the discretion of the Committee on Entrance Certificates candidates may be admitted with conditions, provided the total number of units offered does not fall below the minimum of 12 units, and provided the conditions are of such nature that, in the judgment of the Committee, they may be removed according to the regulations given in the next paragraph. The Committee has the discretionary power to admit certain candidates

whose credits fall below 12 units, if, in the opinion of the Committee, the maturity of the candidate, who must be at least twenty-one years of age, justifies such action. Candidates thus admitted will be classed as special students.

Entrance conditions in any subject must be made up by September of the following year. A student who fails to comply with this regulation will not be allowed to register for any course in his Sophomore year.

The requirements in each of the subjects accepted for entrance are as follows:

ENGLISH: (1913-1915) (a) Grammar and Rhetoric 1. unit
(b) Reading and Practice 1. unit

Two from each of the following groups:—

- A. 1. Selections from the *Old Testament* (the chief narrative episodes in *Genesis*, *Exodus*, *Joshua*, *Judges*, *Samuel*, *Kings*, and *Daniel*. and the books of *Ruth* and *Esther*); 2. the *Odyssey*, (English translation), (Books I, II, III, IV, V, XV, XVI, XVII may be omitted); 3. the *Iliad*, (English translation), (Books XI, XIII, XIV, XV, XVII, XXI may be omitted); 4. Virgil's *Aeneid* (English translation).
A unit from any other group may be substituted for any unit in this group.
- B. 1. Shakespeare's *The Merchant of Venice*; 2. *A Midsummer Night's Dream*; 3. *As You Like it*; 4. *Twelfth Night*; 5. *Henry the Fifth*; 6. *Julius Caesar*.
- C. 1. Defoe's *Robinson Crusoe*. (Part I); 2. Goldsmith's *The Vicar of Wakefield*; 3. either Scott's *Ivanhoe* or *Quentin Durward*; 4. Hawthorne's *The House of Seven Gables*; 5. either Dickens's *David Copperfield* or *A Tale of Two Cities*; 6. Thackeray's *Henry Esmond*; 7. Mrs. Gaskell's *Cranford*; 8. George Eliot's *Silas Marner*; 9. Stevenson's *Treasure Island*.
- D. 1. Bunyan's *The Pilgrim's Progress*. (Part I); 2. *The Sir Roger de Coverley Papers* in *The Spectator*; 3. Franklin's *Autobiography*; 4. Irving's *Sketch Book*; 5. Macaulay's *Essays on Lord Clive* and *Warren Hastings*; 6. Thackeray's *English Humorists*; 7. Selections from Lincoln (including at least the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the last public Address, and Letter to Horace Greeley) along with a brief memoir or estimate; 8. Parkman's *The Oregon Trail*; 9. Either Thoreau's *Walden*, or Huxley's *Autobiography* and selections from *Lay Sermons*, including the addresses on *Improving*

Natural Knowledge, A Liberal Education, and A Piece of Chalk;
10. Stevenson's *An Inland Voyage and Travels with a Donkey.*

- E. 1. Palgrave's *Golden Treasury*, (First Series), Books II and III with especial attention to Dryden, Collins, Gray, Cowper, and Burns; 2. Gray's *An Elegy in a Country Churchyard* and Goldsmith's *The Deserted Village*; 3. Coleridge's *The Rime of the Ancient Mariner* and Lowell's *The Vision of Sir Launfal*; 4. Scott's *The Lady of the Lake*; 5. Byron's *Childe Harold*, Canto IV, and *The Prisoner of Chillon*; 6. Palgrave's *Golden Treasury* (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; 7. Poe's *The Raven*, Longfellow's *The Courtship of Miles Standish*, and Whittier's *Snow-bound*; 8. Macaulay's *Lays of Ancient Rome* and Arnold's *Sohrab and Rustum*; 9. Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; 10. Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*.

The candidate is expected to have sufficient knowledge of these books to enable him to answer general questions on their substance. The form of the examination will be the composition of paragraphs on a number of topics connected with the work. The ability of the candidate to express his ideas in clear, accurate English is a main consideration. No applicant should present himself who is notably deficient in spelling, grammar, or paragraphing.

(c) Study and Practice 1. unit

Shakespeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, and *Comus*; Burke's *Speech on Conciliation with America*, or Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; Macaulay's *Life of Johnson*, or Carlyle's *Essay on Burns*.

The questions on these books will be on subject matter and structure.

HISTORY: (a) The histories of the United States, Greece, and Rome, as outlined in the best text books for high schools 2. units

(b) The histories of the United States and England as outlined in the best text books for high schools, 2. units

(c) Mediæval History 1. unit

MATHEMATICS: (a) Algebra 1.5 units

The whole of a high school algebra including quadratic equations, binomial theorem, and progressions.

(b) The whole of Plane Geometry..... 1. unit

(c) The whole of Solid Geometry..... .5 unit

(d) Trigonometry5 unit

Plane trigonometry and spherical trigonometry through right triangles.

GREEK: (a) Grammar and Composition..... 1. unit

Acquaintance with the more usual forms and constructions; simple narrative in English, based upon Xenophon's Anabasis, to be translated into Greek.

(b) Xenophon 1. unit

The first four books of the Anabasis.

(c) Homer 1. unit

The first three books of the Iliad, (omitting II., 494—end), with study of Homeric forms, constructions, and prosody.

LATIN: (a) Grammar and Composition 1. unit

Forms, syntax, and prosody; simple narrative in English, based upon the prose read, to be translated into Latin.

(b) Cæsar 1. unit

The first four books of the Gallic War.

(c) Cicero7 unit

The four orations against Catiline.

(d) Vergil 1. unit

The first six books of the Æneid, study of hexameter verse.

(e) Cornelius Nepos 1. unit

The first fifteen lives.

FRENCH: (a) Elementary 2. units

The forms and uses of the various parts of speech, including irregular verbs; translation of 250 or more pages of easy prose into idiomatic English; translation of simple English sentences into French; pronunciation.

(b) Intermediate 1. unit

Translation of 400 or more pages of French of ordinary difficulty.

GERMAN: (a) Elementary 2. units

Inflection, including the most common irregular verbs; the ordinary laws of German syntax; translation of 200 or more pages of easy German into idiomatic English; translation of simple English sentences, based upon passages read, into German.

(b) Intermediate 1. unit

Translation of 400 or more pages of German of ordinary difficulty.

SPANISH: Elementary 2. units

Inflection, including the most common irregular verbs; ordinary laws of syntax; translation of 250 pages or more of easy Spanish into idiomatic English; translation of simple English sentences, based upon the passages read, into Spanish.

BOTANY: 1. unit

A course such as is contained in any standard text book; laboratory work.

CHEMISTRY: 1. unit

A course such as is contained in any standard text book; laboratory work.

PHYSICS: 1. unit

A course such as is contained in Millikan and Gale's Physics or Carhart and Chute's High School Physics; laboratory work such as is outlined in Millikan and Gale's Physics.

PHYSIOGRAPHY:5 unit

A course such as is contained in any standard text book.

- PHYSIOLOGY:**5 unit
A course such as is contained in any standard text book.
- ZOOLOGY:** 1. unit
A year's course such as is contained in any standard text book.
- CIVICS:**5 unit
A course such as is contained in any standard text book.
- DRAWING:** 1. unit
A year's work, including simple geometrical plane and solid figures, simple pieces of machinery; elementary rules of perspective, light, and shade, as applied in free-hand sketching.

Admission to Advanced Standing

A candidate for advanced standing may be admitted to the Sophomore, Junior, or Senior Class, with or without complete examination. He is subject not only to the examinations required of candidates for admission into the Freshman Class, but to special examinations both in all the required studies already pursued by the class which he desires to enter, and in as many elective studies as would have been required of him as a member of that class. When satisfied with the apparent fitness of the candidate, the examining committee may, in spite of his deficiencies in some studies, admit him to an advanced class; but a candidate so admitted is not recommended for the degree until the deficiencies are made good. The examining committee may accept, also, with proper restrictions, the official report of work satisfactorily completed at a college or university of good standing in place of an examination upon such previous work.

A candidate for advanced standing should present himself for examination on the same days and at the same hours as candidates for admission into the Freshman Class.

CURRICULUM

COURSES LEADING TO THE DEGREE OF BACHELOR OF ARTS

In order to be recommended for the degree of Bachelor of Arts, the student must have passed satisfactory examinations in all the studies required in one of the groups prescribed for the Freshman and Sophomore years, and in a number of elective studies during the Junior and Senior years sufficient to amount to an average of fifteen hours of lectures or recitations a week for each of these years. Students who expect at some time to carry out investigation in any science or scientific profession, such as medicine or engineering, are earnestly recommended to enter upon their Senior year with a reading knowledge of German and French. Class work in these subjects should have included at least German 1 and 2 and French 1.

The group of studies selected for the Freshman and Sophomore years must correspond to the group of subjects offered for entrance.

Freshman Year

GROUP 1.		GROUP 2.	GROUP 3.
English 1 (3)*		English 1 (3)	English 1 (3)
Mathematics 1 (4)		Mathematics 1 (4)	Mathematics 1 (4)
Greek 1 (4)	Select	Greek 1 (4)	German 1 (3)
Latin 1 (4)	one	Latin 1 (4)	French 1 (3)
Pub. Speaking 1 (1)	Select	German 1 (3)	History 1 (3)
	one	French 1 (3)	Pub. Speaking 1 (1)
		History 1 (3)	
		Pub. Speaking 1 (1)	

Sophomore Year

GROUP 1.		GROUP 2.	GROUP 3.
Select	English 2 (3)	English 2 (3)	English 2 (3)
one	Greek 2 (3)	Greek 2 (3)	Math. 2 (3)
	Latin 2 (3)	Latin 2 (3)	Chem. 1 (3)
Select	Greek 2 (3)	Select	Physics 1 (3)
one	Latin 2 (3)	two	Elective (3)
	German 1 (3)	Greek 1 (3)	
	French 1 (3)	French 1 (3)	
		German 2 (3)	
		French 2 (3)	
Select	Math. 2 (3)	Select	Math. 2 (3)
one	Chem. 1 (3)	one	Physics 1 (3)
	Physics 1 (3)		Elective (3)
	Elective (3)		

*Numerals in parentheses indicate the number of hours a week.

SOPHOMORE ELECTIVES: Greek 2 (3), Latin 2 (3), German 1 (3), French 1 (3), History 3 (3), History 8 (3), Botany 1 (3), Chemistry 1 (3), Geology 1 (3), Mathematics 2 (3), Physics 1 (3), Zoology 1 (3).

The selection made must in each case be submitted to Professor BAIN for approval.

Junior Year

ELECTIVE STUDIES amounting to fifteen hours a week, of which at least one study must be taken from each of the following groups, A, B, and C:

A

English 3 (3), 4 (2), 5 (3), 6 (3), 8 (2), 9 (2), 10 (3), 11 (3), 12 (2), 14 (3), 16 (2).
 Public Speaking 2 (2), 3 (2), 4 (2).
 Greek 2 (3), 4 (2), 5 (1), 6 (2), 7 (3), 9 (1), 10 (1½), 14A (1), 14 B (1), 15 (2), 16 (1), 19 (2).
 Latin 2 (3), 4 (2), 5 (2), 6 (2), 7 (1), 7A (1), 8 (1), 9 (2), 10 (2), 13 (2), 15 (2), 16 (1).
 German 2A (3), 2B (3), 3 (2), 4 (3), 5 (3), 6 (3), 7A (2), 7B (2).
 French 2 (3), 3 (3), 4A (3), 4B (3), 5 (3).
 Spanish 1 (3), 2 (3), 3 (2).
 Italian 1 (3).

B

History 2 (2), 3 (3), 4 (2), 5 (2), 6 (1), 7 (3), 8 (3), 9 (2), 11 (1), 12A (1), 12B (1), 15 (2).
 Philosophy 1 (3), 2 (2), 3 (2), 4 (3), 6 (3).
 Economics 1 (3), 4 (3), 5 (2).
 Education 1 and 2 (3), 3 (1½), 4 (1½), 5 (1), 6 (1), 9 (1½), 10 (1½), 14 (2), 17 (3), 18 (3).

C

Mathematics 2 (3), 3 (3), 3A (2), 3B (2), 3D (1), 3E (1), 4 (3), 5 (3), 14 (2).
 Physics 1 (3), 2 (2), 4 (2), 5 (2), 6 (2).
 Chemistry 1 (3), 2 (3), 3 (2), 4 (3), 5 (3), 7 (3), 16 (1½).
 Zoology 1 (3), 2 (3), 4 (5).
 Botany 1 (3), 2 (3), 3 (3).
 Geology 1 (3), 2 (3), 3 (3), 4 (3), 5 (3), 8 (3), 8A (1), 13 (1½).
 Electrical Engineering 1 (3), 1A (3), 9A (1).

The selection made must in each case be submitted to Professor Patterson for approval.

Senior Year

ELECTIVE STUDIES amounting to fifteen hours a week, subject to the condition stated above for the Junior Year. In addition to the courses named for Junior Year the following courses are also open to Seniors:

A

English 7 (2).
Greek 17 (1).
Latin 14 (1).

B

History 10 (2).
Economics 2 (2), 3 (2).
Education 7 (3), 8 (1½), 11 (2), 15 (2), 16 (2).
Philosophy 7 (1½).
Law (3).

C

Mathematics 6 (3), 7 (2), 7A (3), 8 (3), 10 (4), 11 (2), 13 (3), 16 (2).
Chemistry 5A (2), 6 (1), 7A (2), 7B (2), 8 (5), 17 (3).
Geology 6 (3), 7 (3), 12 (1).
Electrical Engineering 2A (2½), 2B (1½), 3 (3), 4 (2), 5 (1½),
6 (1), 7 (1), 9B (1).
Anatomy 1 (3).
Physiology 1 (1½).

The selection made must in each case be submitted to Professor HOWE for approval.

COURSES OF INSTRUCTION

DEPARTMENT OF BOTANY

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*

HENRY ROLAND TOTTEN, A. B., *Assistant in Botany.*

[For description of Biological Laboratories, see page 227.]

1. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor COKER and Mr. TOTTEN.
2. Physiology: a general course in plant physiology; lectures with laboratory and field experiments. Junior and Senior elective. *Both terms, three hours.* Professor COKER and Mr. TOTTEN.
3. Special Morphology of the Algæ and Fungi, with attention to the culture of lower fungi, and the identification of mushrooms; lectures with laboratory and field work. Junior and Senior elective. *Both terms, three hours.* Professor COKER and Mr. TOTTEN.

For Course 4, see Graduate School.

DEPARTMENT OF CHEMISTRY

CHARLES HOLMES HERTY, Ph. D., *Smith Professor of General and Industrial Chemistry.*

*FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., *Lecturer on the History of Chemistry.*

ALVIN SAWYER WHEELER, Ph. D., *Professor of Organic Chemistry.*

JAMES MUNSIE BELL, Ph. D., *Professor of Physical Chemistry.*

WILLIAM LEWIS JEFFRIES, A. M., *Instructor in Chemistry.*

JAMES TALMAGE DOBBINS, A. M., *Le Doux Fellow in Chemistry.*

CARNIE BLAKE CARTER, B. S., *Fellow in Technical Chemistry.*

VICTOR CLYDE EDWARDS, A. B., *Fellow in Chemistry.*

*Absent on leave 1913-1914.

LELAND BROWN RHODES, B. S., *Fellow in Organic Chemistry.*

FRANK DAVIES CONROY, *Assistant in Chemistry.*

VICTOR ALDINE COULTER, B. S., *Assistant in Chemistry.*

ARTHUR JAMES FLUME, *Assistant in Chemistry.*

WILLIAM AUGUSTUS RUDISILL, B. S., *Assistant in Chemistry.*

JACKSON TOWNSEND, A. B., *Assistant in Chemistry.*

[For description of Chemical Laboratories, see page 225.]

1. General Descriptive Chemistry: a study of the elements and their compounds, including an introduction to Organic Chemistry; lectures with laboratory work. Required of Sophomores in Group 3, elective in Groups 1 and 2. *Both terms, three hours.* Professor HERTY, and Messrs. JEFFRIES, RUDISILL, and TOWNSEND.

Laboratory fee, \$1.25 a term.

2. Technical Chemistry: (a) Industrial and Agricultural Chemistry; glass-making, acids, alkalies, phosphates, fertilizers, foods, clothing, hygiene, etc. (b) Metallurgy: mining, treatment of ores, smelting, chlorination, fuel, building materials, etc. Junior and Senior elective; prerequisite, Chemistry 1. *Both terms, three hours.* Professor HERTY.

3. Qualitative Analysis: laboratory work with lectures. Prerequisite, Chemistry 1. Junior and Senior elective. *Both terms, two hours.* Professor WHEELER and Mr. FLUME.

Laboratory fee, \$5.00 a term.

4. Quantitative Analysis: laboratory work, lectures, and stoichiometric exercises; a grounding in analytical methods. Junior and Senior elective; prerequisite, Chemistry 1 and 3 or may be taken with 3. *Both terms, three hours.* Professor BELL.

Laboratory fee, \$5.00 a term.

5. Organic Chemistry: Junior and Senior elective; prerequisite, Chemistry 1 and 3. *Both terms, three hours.* Professor WHEELER.

Laboratory fee, \$4.00 a term.

- 5A. Organic Chemistry: laboratory work chiefly. This course is designed to give further practice in dealing with organic substances. Senior elective; prerequisite, Chemistry 5. *Both terms, two hours.* Professor WHEELER.
Laboratory fee, \$6.00 a term.
6. History of Chemistry; Senior elective; prerequisite, Chemistry 5 and 7. *Spring term, two hours.* President VENABLE.
7. Elementary Physical Chemistry: Junior and Senior elective; prerequisite, Chemistry 3 and 4. *Both terms, three hours.* Professor BELL.
Laboratory fee, \$2.00 a term.
- 7A. Physical Chemistry: lectures and text books, with laboratory work. Senior elective; prerequisite, Chemistry 7. *Both terms, two hours.* Professor BELL.
Laboratory fee, \$2.00 a term.
- 7B. Electro-Chemistry: theory and application of electricity to chemical processes. Senior elective; prerequisite, Chemistry 4. *Both terms, two hours.* Professor BELL.
Laboratory fee, \$2.00 a term.
8. Quantitative Analysis: laboratory work; gas analysis and extension of course 4 along technical lines; research. Senior elective; prerequisite, Chemistry 1, 3, and 4. *Both terms, five hours.* Professor HERTY.
Laboratory fee, \$10.00 a term.
16. Inorganic Chemistry: a detailed study of the reactions of the elements and their compounds. Lectures and text book. Junior and Senior elective; prerequisite, Chemistry 4. *Spring term, three hours.* Professor HERTY.
17. Quantitative Analysis: laboratory work. Extension of course 4 along technical lines. Senior elective; prerequisite, Chemistry 4. *Both terms, three hours.* Professor HERTY.
Laboratory fee, \$5.00 a term.

The Journal Club meets fortnightly. The current journals, American, English, German, and French, both the purely scientific and the technical, are reviewed by the students and instructors. Attendance is expected of students in advanced courses.

For courses 3A and 4A, see School of Applied Science.

For courses 9 and 10, see School of Medicine and School of Pharmacy.

For courses 11, 12, 13, 14, and 15, see Graduate School.

DEPARTMENT OF ECONOMICS AND FINANCE

CHARLES LEE RAPER, Ph. D., *Professor of Economics.*

1. General Economics: A general study of the principles which are involved in the production, distribution, and consumption of wealth, and in the relation of wealth to welfare; a special study of labor, land, capital, business management, and the state, as factors in the production and distribution of wealth. Raper's *Principles of Wealth and Welfare*, and Seligman's *Principles of Economics*. Junior and Senior elective. *Both terms, three hours.* Professor RAPER.
2. Public Finance: A general study of the principles which are involved in the revenues and expenditures of the state, and in the relation of the state to the industries of its citizens; a special study of taxation and the tariff. Lectures, readings, and reports. Adams' *The Science of Finance*. Senior elective. *Both terms, two hours.* Professor RAPER.
Given in alternate years; to be given in 1914-1915.
3. Economic Institutions and Thought in England and the United States: A general study, largely from the historical point of view, of the economic institutions and the systems of economic thought in England and the United States; a special study of socialism. Lectures, readings, and reports. Cheyney's *Industrial and Social History of England*, Brooks' *The Social Unrest*, Spargo's *Socialism*, and the *Communist Manifesto* (Marx and Engels). Senior elective. *Both terms, two hours.* Professor RAPER.

4. Money, Banking, and Insurance: (a) A general study of the principles, functions, and forms of money and banking; a special study of current monetary problems. Lectures, readings, and reports. Kinley's *Money*, Dunbar's *Theory and History of Banking*, (2nd Ed.), and Jones' *Economic Crises*. (b) A general study of the principles and methods of insurance; a special study of the regulation of insurance by the state. Lectures and readings. Junior and Senior elective. *Both terms, three hours.* Professor RAPER.
5. Transportation and Labor: (a) A general study, from the historical and critical points of view, of railway transportation in such representative countries as Great Britain, France, Italy, Germany, and the United States; the general conditions of traffic, the passenger service and rates, the freight service and rates, and the ideals and machinery of the state's relation receive special consideration. Lectures, readings, and reports. Raper's *Railway Transportation: a History of its Economics and of its Relation to the State*. (b) Labor as an agent in the production of wealth; wages; some wages problems, as, for instance, woman and child labor, immigration, sweating system, and poverty; some of the solutions of these problems, as, for instance, strikes, boycotts, trades unions, conciliation and arbitration, profit-sharing, co-operation, industrial education, and the factory acts; the relation of the state to wages problems. Adams and Sumner's *Labor Problems*. Junior and Senior elective. *Both terms, two hours.*

Given in alternate years; to be omitted in 1914-1915.

A certificate is granted to the student who has completed, with credit, courses 1-5.

EDUCATION

The announcement of courses in Education and in Library Administration will be found under THE SCHOOL OF EDUCATION.

DEPARTMENT OF ELECTRICAL ENGINEERING

PARKER HAYWARD DAGGETT, S. B., *Professor of Electrical Engineering.*

JOHN WESLEY MCIVER, S. B., *Assistant in Electrical Engineering.*

[For description of Electrical Engineering Laboratories, see p. 223.]

1. The Elements of Electrical Engineering: a general survey of the fundamental principles of electrical machinery and apparatus. This course is intended to lay a solid foundation in preparation for the more advanced and specialized courses in the department. The work begins with a thorough study of electric and magnetic circuits. The construction and operating features of direct current machines are then considered, each machine being treated as a combination of these two circuits. Brief consideration is then devoted to batteries, lamps, and the systems of power transmission. In the second term the elementary theory of alternating currents is begun, and the method of handling the simpler problems in alternating current circuits is studied. The laboratory work comprises a practical study of circuits and machines and follows the lecture work closely. Text: Christie's *Electrical Engineering*. Junior and Senior elective. Prerequisites, Mathematics 2 and Physics 1 and 4. *Both terms, three hours.* Professor DAGGETT, and Mr. MCIVER.

Laboratory fee, \$3.00 a term.

- 1A. Generation, Transmission and Utilization of Electrical Energy. This course is designed primarily for students desiring a general practical knowledge of electrical apparatus, and aims to give them a knowledge of the principles and operating features of dynamos, transformers, storage batteries, lamps, measuring instruments, and the systems of electrical power transmission. Text book: Timbie's *The Elements of Electricity*, and Clewell's *Laboratory Manual of Direct and Alternating Currents*. Lectures, recitations, problems and laboratory work. Junior and Senior elective. Pre-

requisites, Mathematics 2 and Physics 1. *Both terms, three hours.* Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$3.00 a term.

- 2A. Alternating Currents. The work of this course begins with a review of the electric, magnetic and dielectric circuits, and of the elementary theory of alternating currents. A thorough study is then made of the various methods of solving the more complicated problems of single and polyphase circuits. Considerable time is devoted to the study of the effects of iron cores in alternating current circuits and to the analysis of distorted wave forms. This leads to the study of the transformer which serves as a typical example of the fundamental principles previously developed. Throughout the course extensive use is made of the calculus; at the same time, the importance of a clear physical conception of the various phenomena is emphasized, and graphical solutions by means of vector diagrams are freely employed as a means of visualizing problems. The laboratory work comprises mainly the study of distorted wave forms of current and e. m. f., polyphase circuits, and transformer tests. Text book: Jackson's *Alternating Currents and Alternating Current Machinery*. Senior elective. Prerequisites, Mathematics 4 and Electrical Engineering 2A. *Fall term, five hours.* Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$5.00.

- 2B. Alternating Current Machinery: a continuation of course 2A, consisting of a thorough study, from the theoretical and experimental points of view, mainly of the following machines; synchronous alternators and motors; induction motors; induction generators; synchronous converters; series alternating current commutator motors. The theory of each machine is developed from the standpoint of the fundamental laws of the electric and magnetic circuits. From the design constants of the machines in the laboratory is made a predetermination of the performance of each machine, and the laboratory work consists mainly in checking and com-

paring the actual performance of the machines with the predetermined characteristics. A study is also made of the commercial methods of testing the various machines. Senior elective. Prerequisite, Electrical Engineering 2A. *Spring term, three hours.* Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$5.00.

3. Electrical Measurements and Testing. This course is mainly a laboratory course in general testing. The work in the laboratory consists of the following tests: calibration of instruments; precise measurements of resistance, inductance and capacity; parallel operation of direct current generators, transformers and alternators; efficiency tests; pumping back methods of loading, including a heat run on a transformer; testing of dielectrics, and miscellaneous tests on storage batteries, potential regulators and frequency changers. About six weeks of the Spring term are devoted to lectures on electro-chemical processes by Professor BELL, supplemented by laboratory work in the construction of standard cells, conductivity measurements and the manufacture of calcium carbide, silicon carbide and the reduction of aluminum. Laboratory Manual: Karapetoff's *Experimental Electrical Engineering*. Senior elective. Prerequisite, Electrical Engineering 1. *Both terms, three hours.* Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$5.00 a term.

4. Dynamo Design. An elementary course in the principles of the design of standard electrical apparatus. The aim of the course is not merely to produce complete designs and drawings based on purely empirical formulæ, which have but little significance to the student, but rather to train the student in rational methods of design, based on the same fundamental principles used in his other work. Emphasis is placed on logical analysis of the various problems, both from a theoretical point of view and in the light of commercial limi-

tations and economic conditions involved in manufacturing. Texts: Gray's *Electric Machine Design* and Hobart's *Dynamo Design*. Senior elective. Open to students who take or have taken Electrical Engineering 2A and 2B. *Both terms, two hours.* Professor DAGGETT.

5. Illuminating Engineering. The work of this course begins with a study of the physics of light, including an experimental lecture by Professor Patterson, followed by three lectures on the physiological and psychological aspects of the subject by Professors Manning and Chase. Considerable time is then devoted to the subject of photometry, after which a study is made of modern sources of artificial light. Finally are considered the principles of design of interior and exterior illumination, especial attention being devoted to the conservation of the eyesight, and the attainment of the highest efficiency consistent with the best artistic effect. Reference books: Barrow's *Light, Photometry and Illumination*, and Steinmetz' *Radiation, Light and Illumination*. Senior elective. Prerequisite, Electrical Engineering 1. *Fall term, three hours.* Professor DAGGETT.

Laboratory fee, \$3.00.

6. Telephone and Telegraph Engineering. This course deals with the principles of the transmission of intelligence by telephone and telegraph, including a brief study of wireless telegraphy. The various parts of the telephone plant are outlined, together with a study of fault location, loading coils, inductive disturbances and composite lines. Lectures and problem work. Senior elective. Prerequisite, Electrical Engineering 1. *Spring term, two hours.* Professor DAGGETT.
7. Electric Power Transmission. A course of lectures and recitations on the design of long distance transmission lines. (a) The economic principles involved in the preliminary design and lay-out. (b) Electrical principles; line materials and constants; regulation; trans-

ient phenomena; insulation and lightning protection. (c) Mechanical design: sag of conductors; spans; poles and towers. Text: Still's *Overhead Electric Power Transmission*. Senior elective. Prerequisite, Electrical Engineering 2A. *Spring term, two hours*. Professor DAGGETT.

- 9A. Steam Machinery. A general elementary course in the construction, operation and use of the machinery of modern power plants, the main object of the course being to give the student a working knowledge of the apparatus in preparation for course 9B. Some of the subjects considered are the construction and operation of steam boilers; mechanical stokers; fuels and combustion; draft; feed pumps and feed water heaters; piping systems; construction and operation of the simple slide-valve engine; valves and valve-gears; indicating and governing; condensers; multiple-expansion engines; steam turbines. Text: Spangler, Greene and Marshall's *Elements of Steam Engineering*. Junior and Senior elective. Prerequisites, Drawing 1 and Physics 1. *Fall term, two hours*. Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$2.00.

- 9B. Electric Power Plants: a continuation of course 9A from the standpoint of the choice of machines and apparatus, and the layout of the plant as a whole. Considerable attention is devoted to the electrical control apparatus and switch-gear. A brief survey is made of the organization and management of power plants, including the questions of rates and relations to the public. The work will be covered by recitations on the text book, supplemented by lectures, and each student will be required to complete one original design. Text: Meyer's *Steam Power Plants*. Senior elective. Prerequisites, Physics 6 and Electrical Engineering 1 and 9A. *Spring term, two hours*. Professor DAGGETT.

For courses for Graduate Students, see Graduate School.

DEPARTMENT OF ENGLISH

JAMES FINCH ROYSTER, Ph. D., *Professor of English.*

EDWARD KIDDER GRAHAM, A. M., *Professor of English.*

EDWIN GREENLAW, Ph. D., *Professor of English.*

GEORGE MCFARLAND MCKIE, A. M., *Associate Professor of Public Speaking.*

JOHN MANNING BOOKER, Ph. D., *Associate Professor of English.*

GEORGE MARK SNEATH, A. M., *Instructor in English.*

JOHN MARCELLUS STEADMAN, JR., A. M., *Assistant in English*

1. Types of Literature: the short story, the novel, the essay; the lyric, the epic, the ballad, and the drama. Practical rhetoric and theme writing during the second term. This course lays the foundation for the student's later studies in both literature and composition. Required of Freshmen. *Both terms, three hours.* Professor ROYSTER, Associate Professor BOOKER, Mr. SNEATH, and Mr. STEADMAN.
2. First term: Rhetoric and Composition; preparation and criticism of daily and weekly themes. Second term: History of English Literature. Reports on assigned readings. Required of Sophomores. *Both terms, three hours.* Professors ROYSTER and GREENLAW, Associate Professor BOOKER, and Mr. SNEATH.
3. Advanced Composition: constant practice throughout the year in the various forms of prose discourse. Lectures and discussions. Junior and Senior elective; prerequisite, a grade of 80 in English 2. *Both terms, three hours.* Professor GRAHAM.
4. The English Novel. The development of prose fiction (romance, novel, short story) in England from the sixteenth century to the present time; stress will fall on the period from Richardson to Hardy. Attention will be paid to the development of the technique of the novel and the short story, and to the service of fiction

as an interpretation of life. Junior and Senior elective; open to Sophomores by special permission of the Department. *Both terms, two hours.* Professor GREENLAW.

This course alternates with English 12; to be given in 1914-1915.

5. The Elizabethan Drama. A brief study of the beginnings of the English drama, followed by an intensive study of the period from Lyly to the closing of the theatres. While particular attention is paid to Shakespeare, it is also the purpose of the course to study his work in connection with that of his contemporaries. Junior and Senior elective; open to Sophomores by special permission of the Department. *Both terms, three hours.* Professor GREENLAW.
6. Introductory course in Old English and Middle English. In the first term a careful study is made of Old English grammar and syntax; a large amount of easy Old English prose is read. Text: Bright's *Anglo Saxon Reader*. In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. Texts: Greenlaw's *Selections from Chaucer*; Emerson's *Middle English Reader*. The aim of the course is to acquaint the student with the main facts of the beginning and development of the English language. The language of the older periods is considered in its relation to present-day English; many points of confusion in Modern English, unexplained by the rules of logical grammar, are made clear. Junior and Senior elective; open to Sophomores by special permission of the Department. *Both terms, three hours.* Professor ROYSTER.

The attention of students electing this course is called to course 13 in the Department of Latin and to course 6 in the Department of German.

7. Advanced course in Old English and Middle English. The work of the first term continues the study of Old English grammar, particularly in its relation to that of the other Indo-European languages, and takes up the

reading of Old English poetry. A study of Chaucer's minor poems will be the basis of the work of the second term, 1915. Senior elective; prerequisite, English 6 or its equivalent. *Both terms, two hours.* Professor ROYSTER.

8. History of the English Language. This course supplements English 6. It will trace the growth of the English language from its beginnings in England until to-day. Junior and Senior elective. *Both terms, two hours.* Professor ROYSTER.
9. The Contemporary Drama. In this course the condition of the stage and the character of the plays in England from 1840 to the present day will be sketched. The lectures will deal particularly with the imitation and adaptation of French plays, the attempts to put into dramatic form problems of contemporary life and manners, the sociological and artistic tendencies of the modern drama, the manifestations of decadence, the influence of Ibsen, the recent German drama, the literary drama, and the present day outlook. A large number of representative modern dramas will be assigned for reading. Junior and Senior elective. *Both terms, two hours.* Professor ROYSTER.
10. American Literature. American Literature in the light of American history and culture. Special attention to the literature of New England (1825-1892), to Southern literature since the Civil War, and to the western humorists. Junior and Senior elective. *Both terms, three hours.* Associate Professor BOOKER.
11. English Literature in the Age of Elizabeth. A study of the types of literature, except the drama: the pastoral; the sonnets and other lyrical poetry; the epic; prose fiction (both short story and novel); the essay. The relations between English and Continental literature in the Renaissance. Junior and Senior elective. *Both terms, three hours.* Professor GREENLAW.

12. English Classicism. The influence of the classical literatures and criticism from Sidney to Johnson; the pseudo-classic theories of literature and their influence on poetry and the Restoration drama; Milton, Dryden, Pope, Johnson, and their contemporaries. Junior and Senior elective. *Both terms, two hours.* Professor GREENLAW.

This course alternates with English 4; to be omitted in 1914-1915.

14. Nineteenth Century Literature. (1799-1892.) Emphasis in the first term on Wordsworth, Byron, and Shelley; in the second on Arnold, Tennyson, and Browning. Junior and Senior elective; open to Sophomores by special permission of the Department. *Both terms, three hours.* Associate Professor BOOKER.
16. Journalism. Practice in the forms of journalistic composition. Junior and Senior elective. *Both terms, two hours.* Professor ROYSTER.

An honor certificate, carrying the recommendation of the Department, is granted a student who has completed with an average grade of not less than 85 courses 1, 2, 4 or 5, 6, 11 or 12; and 14.

Public Speaking

1. A course in declamation and in simple extempore speaking on subjects of current interest. The aim of this course is to correct faults in speech and to form the habit of simple, clear, direct speaking. Required of Freshmen. *Both terms, one hour.* Associate Professor McKIE.
2. The Forms of Public Address: the argumentative speech, the commemorative address, the after dinner speech, the eulogy. Open to Sophomores who have attained a grade of 2 in English 1, and to Juniors and Seniors; prerequisite, Public Speaking 1. *Both terms, two hours.* Associate Professor McKIE.
3. Debate: the preparation of briefs and forensics, and practice in oral debate. Junior and Senior elective; prerequisites, Public Speaking 1. *Both terms, two hours.* Associate Professor McKIE.

4. Interpretative Speaking and Reading: a course designed to develop through vocal expression an appreciation of good literature, and an ability to interest others in the works of great writers. Open to Sophomores who have attained a grade of 2 in Public Speaking 1, and to Juniors and Seniors. *Both terms, two hours.* Associate Professor McKIE.

DEPARTMENT OF GEOLOGY AND MINERALOGY

COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*

JOSEPH HYDE PRATT, Ph. D., *State Geologist and Professor of Economic Geology.*

JOHN ELIPHALET SMITH, M. S., *Instructor in Geology.*

ELDRED OSCAR RANDOLPH, A. B., *Assistant in Geology.*

[For description of Geological Laboratories, see page 228.]

1. Elementary Geology: lectures with field work; laboratory work on the common minerals and rocks. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor COBB and Mr. RANDOLPH.
Laboratory fee, \$1.00 for the fall term, \$3.00 for the spring term.
2. Mineralogy: crystallography, physical and chemical properties of minerals, blowpipe analysis, determinations; lectures, laboratory, and field work; Dana's *Manual of Mineralogy* (Ford). Junior and Senior elective; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. SMITH.
Laboratory fee, \$5.00 a term.
3. General Critical Geology: lectures with field work; laboratory work on rocks and fossils; theses. Junior and Senior elective. *Both terms, three hours.* Professor COBB.
Laboratory fee, \$3.00 for the fall term, \$5.00 for the spring term.
4. Economic Geology: ore deposits, coal, oil and gas, clays, building stone, cement materials, fertilizers, underground waters, etc.; occurrence, methods of exploitation, production, and conservation of mineral re-

sources; lectures, laboratory, and field work. Junior and Senior elective; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, \$1.00 a term.

5. Petrography: rocks and rock minerals, optical mineralogy, crystallography, etc.; lectures, laboratory work, theses, and field work. Junior and Senior elective. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, \$3.00 a term.

6. Advanced field work and special research in Geology or Geography; problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Senior elective; prerequisite, two courses in Geology. *Both terms, three hours.* Professor COBB.

7. Advanced course in Physiography. Senior elective; prerequisite, Geology 1 and Zoology 1 or Botany 1. *Both terms, three hours.* Professor COBB.

Laboratory fee, \$2.00 a term.

8. Origin and Nature of Soils: field work, laboratory work, and theses. Students in this course are expected to keep Saturday open for field work. Junior and Senior elective; prerequisite, Geology 1 and 2, Chemistry 1 and 3, Botany 1. *Both terms, three hours.* Professor COBB.

Laboratory fee, \$3.00 a term.

- 8A. Road Materials: rocks, sands, clays, asphalts, concrete, dust preventives, etc.; their properties and adaptations; laboratory and field work; prerequisite, Geology 1. *Both terms, one hour.* Mr. SMITH.

Laboratory fee, \$1.00 a term.

11. Mineral and Ore Deposits: lectures supplemented by laboratory and field work; prerequisite, Geology 1 and 2 and Chemistry 3. *Twenty-four lectures (Spring term).* Professor PRATT.

12. Advanced Work in Mineralogy. Senior elective. *One hour.* Professor PRATT.
13. Advanced Geological Field Work and Special Research: studies in the Deep River and Wadesboro areas of the Triassic rocks; a brief examination of the Potomac, Eocene, Lafayette, and Columbia deposits. This course is given in the summer. It covers five weeks, of which one is spent in Chapel Hill with daily meetings, the remaining four weeks are devoted to field work. Students who take this course will be expected to devote all their time to it. Junior and Senior elective. *One term, three hours.* Professor COBB.

The Geological Seminary meets fortnightly for review and discussion of current geological literature, and for the presentation of original papers.

For course 9, see Graduate School.

For courses 10 and 10A, see School of Applied Science.

DEPARTMENT OF GERMANIC LANGUAGES

WALTER DALLAM TOY, M. A., *Professor of the Germanic Languages and Literatures.*

KENT JAMES BROWN, Ph. D., *Associate Professor of German.*

ORESTES PEARLE RHYNE, Ph. D., *Assistant Professor of German.*

- A. Elementary Course: grammar; written and oral exercises; translation; sight reading. This course may be counted for entrance only. *Both terms, three hours.* Professor TOY, Associate Professor BROWN and Assistant Professor RHYNE.
- B. Elementary Course: grammar, translation; sight reading. This course is required of students who are taking the Special Course Preparatory to Medicine. It is not elective with German A. *Both terms, three hours.* Assistant Professor RHYNE.
1. Translation, sight reading, composition, grammar. Required of Freshmen in Group 3, elective in Group 2; Sophomore elective. *Both terms, three hours.* Professor TOY and Associate Professor BROWN.

- 1A. Practice in writing and speaking German. Prerequisite, German 1. Sophomore elective. *Both terms, one hour.* Associate Professor BROWN.
- 2A. Schiller: Maria Stuart, Wilhelm Tell; Goethe: Egmont, Iphigenie auf Tauris; Lessing: Minna von Barnhelm. Sophomore elective in Group 2; Junior and Senior elective; prerequisite, German 1. *Both terms, three hours.* Assistant Professor RHYNE.
- 2B. Wide reading of modern German prose, with lectures on the literature in the nineteenth century. Junior and Senior elective; prerequisite, German 1. *Both terms, three hours.* Associate Professor BROWN.
3. History of German Literature: lectures with parallel reading and written reports. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, two hours.* Assistant Professor RHYNE.
To be omitted in 1914-1915.
4. Middle High German: Paul's *Mittelhochdeutsche Grammatik*; Bachmann's *Mittelhochdeutsches Lesebuch*; translation into New High German. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, three hours.* Assistant Professor RHYNE.
5. Old High German: Braune's *Althochdeutsche Grammatik*; Braune's *Althochdeutsches Lesebuch*. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, three hours.* Professor TOY.
6. Gothic: Braune's *Gotische Grammatik*; selected parts of Paul's *Grundriss der Germanischen Philologie*. Introduction to Germanic Philology. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, three hours.* Professor TOY.
- 7A. Goethe: Goetz von Berlichingen, Tasso, Dichtung und Wahrheit, Hermann und Dorothea. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, two hours.* Associate Professor BROWN.

This course may be elected only after consultation with the instructor.

- 7B. Goethe: Faust, Parts I and II. Junior and Senior elective; prerequisite, German 2A or 2B. *Both terms, two hours.* Professor TOY.

This course may be elected only after consultation with the instructor.

A certificate is granted to a student who has completed with credit any four courses exclusive of course A.

DEPARTMENT OF GREEK

CHARLES WESLEY BAIN, M. A., *Professor of the Greek Language and Literature.*

WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*

- A. A course for students who have had no opportunity of studying Greek in the preparatory schools. This course may be counted for entrance only. Moss's *First Greek Reader*; Babbitt's *Greek Grammar*; Xenophon's *Anabasis*. *Both terms, four hours.* Associate Professor BERNARD.
1. Xenophon's Symposium: review of important grammatical principles; Homer's Iliad, books I, II, and III, and Odyssey, book VI; Lysias, Selected Speeches. Reading at sight. Required of Freshmen in Group 1, elective in Group 2. *Both terms, four hours.* Professor BAIN and Associate Professor BERNARD.
 2. Plato, Apology and Crito; Euripides, Hecuba; Aristophanes, Frogs; reading at sight; lectures on Greek Literature. Sophomore elective in Groups 1 and 2. *Both terms, three hours.* Professor BAIN.
 3. Prose Composition: elementary course, intended as supplementary to Greek 1. Open to students who are taking Greek 1 or 2. *Both terms, one hour.* Professor BAIN.
 4. Lectures on Old Greek Life: History of Greek Art; textbook and lectures. Junior and Senior elective. *Both terms, two hours.* Professor BAIN.

5. Modern Greek: Rangabe's Handbook; Bikelas' Stories; Newspapers. Junior and Senior elective. *Spring term, two hours.* Professor BAIN.
6. Homer: rapid reading of the entire Odyssey. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.
7. Greek Drama: Euripides, Iphigenia Among the Taurians; Sophocles, Œdipus Tyrannus; Æschylus, Agamemnon; Aristophanes, Wasps; Aristotle, Poetics. Junior and Senior elective. *Both terms, three hours.* Professor BAIN.
9. Demosthenes, three Philippics. Junior and Senior elective. *Spring term, two hours.* Professor BAIN.
10. Thucydides, Book I. Junior and Senior elective. *Fall term, three hours.* Professor BAIN.
- 14A. The Greek New Testament: The Acts of the Apostles, study of grammar and diction, comparison with English versions. Junior and Senior elective; prerequisite, Greek 2. *Fall term, two hours.* Associate Professor BERNARD.
- 14B. The Greek New Testament: The Gospels; selections from the Epistles and Revelation; the principles of textual criticism; sources of the Greek text with history of the text and versions. Junior and Senior elective; prerequisite, Greek 14A. *Spring term, two hours.* Associate Professor BERNARD.
15. Classical Archæology: History and Principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.
This course is the same as Latin 15.
16. Classical Archæology: Ancient Rome and Athens: a brief survey of the topography and monuments of the two cities. Lectures with prescribed reading. Junior

and Senior elective; open also to Sophomores taking Greek 2 and Latin 2. *Fall term, two hours.* Associate Professor BERNARD.

This course is the same as Latin 16.

17. Greek Epigraphy and Palæography: a brief introduction to the study of Greek inscriptions and manuscripts. Lectures and reports. Senior elective. *Spring term, two hours.* Professor BAIN.

The attention of students electing this course is called to course 14 in the Latin Department.

19. Indo-European Philology; introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palæontology. Junior and Senior elective. *Both terms, two hours.* Associate Professor T. J. WILSON, JR.

The attention of students electing this course is called to courses 6 and 8 in the Department of English and to course 6 in the Department of Germanic Languages. The course is the same as Latin 13.

For courses 8, 11, 12, and 18, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1, 2, 3, and four hours of elective work.

DEPARTMENT OF HISTORY

KEMP PLUMMER BATTLE, A. M., LL. D., *Professor Emeritus of History.*

JOSEPH GREGOIRE DE ROULHAC HAMILTON, Ph.D., *Alumni Professor of History.*

HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of History.*

DANIEL HUGER BACOT, JR., A. M., *Instructor in History.*

1. American History: a general course covering the social, political, and economic development of the United States; text-books, lectures, and readings. Required of Freshmen in Groups 2 and 3. *Both terms, three hours.* Professors HAMILTON and WAGSTAFF, and Mr. BACOT.

2. Mediæval European History: a general course covering the period, 400-1648; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.* Professor WAGSTAFF.

This course alternates with course 4; to be given in 1914-1915.

3. English History: a general course; text-books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Professor WAGSTAFF.

4. Modern European History: a general course covering the period, 1648-1900; text-books, readings, and lectures. Junior and Senior elective. *Both terms, two hours.* Professor WAGSTAFF.

This course alternates with course 2; to be omitted in 1914-1915.

5. The English Constitution and Government: a careful study of English constitutional development and the present government of the English people. Lectures, text-books, and readings. Junior and Senior elective. *Both terms, two hours.* Professor HAMILTON.

6. North Carolina History: a general study of the constitutional, political, and economic development of the State in the period since the Revolution; lectures, readings, and reports. Junior and Senior elective. *Spring term, two hours.* Professor HAMILTON.

7. The American Government and Constitution: a detailed study of the political customs and institutions of the American people; followed in the spring term by a careful study of the Constitution of the United States by means of cases. Text-books, lectures, and readings. Junior and Senior elective. Open also to Sophomores who have obtained a grade of 90 on History 1. *Both terms, three hours.* Professor HAMILTON.

8. Classical History: a general course dealing largely with the Greeks and Romans; text-books, lectures, and readings. Sophomore, Junior, and Senior elective. *Both terms, three hours.* Mr. BACOR.

9. Spanish-American History 1492-1909: the course especially emphasizes the history of the leading Spanish-American countries from their revolutionary period to the present; lectures, text-books, and readings. Junior and Senior elective; open also to Sophomores. *Both terms, two hours.* Professor WAGSTAFF.
10. Civil War and Reconstruction: a detailed study of the constitutional, political, and economic phases of the period of Civil War and Reconstruction; lectures, readings, and reports. Senior elective. *Both terms, two hours.* Professor HAMILTON.
11. The Middle Period: a careful study of the leading movements in the United States from the adoption of the Constitution to 1850; lectures, readings, and reports. Junior and Senior elective. *Fall term, two hours.* Professor HAMILTON.
To be omitted in 1913-1914.
- 12A. The Protestant Revolt: a detailed study of the causes, progress, and results of the Protestant movement, with special attention to the lives, doctrines, and influence of Luther and Calvin; text-books, lectures, and readings. Junior and Senior elective. *Fall term, two hours.* Mr. BACOT.
To be omitted in 1914-1915.
- 12B. The French Revolution: detailed study of the causes, progress and results of the Revolution; text-books, lectures, and readings. Junior and Senior elective. *Spring term, two hours.* Mr. BACOT.
To be omitted in 1914-1915.
15. Modern Municipal Government: a course dealing with urban development and problems in Europe and the United States during the nineteenth century; lectures, readings, and discussion. Junior and Senior elective. *Both terms, two hours.* Mr. BACOT.

A certificate is granted to a student who has completed with credit fifteen hours in History.

For courses 13 and 14, see Graduate School.

DEPARTMENT OF LATIN

GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*

THOMAS JAMES WILSON, JR., Ph. D., *Associate Professor of Latin.*

GEORGE KENNETH GRANT HENRY, A. M., *Instructor in Latin.*

WILBUR HIGH ROYSTER, A. M., *Instructor in Latin.*

1. Cicero, *De Senectute* and *De Amicitia*; Livy, Book I; Horace, *Odes* and *Epodes*; sight reading. Required of Freshmen in Group 1, elective in Group 2. *Both terms, four hours.* Professor HOWE, Associate Professor WILSON, and Messrs. HENRY and ROYSTER.
2. Plautus, *Menæchmi*; Terence, *Phormio*; Horace, *Satires* and *Epistles*; Tacitus, *Agricola* and *Germania*. Sophomore elective in Groups 1 and 2. *Both terms, three hours.* Professor HOWE, Associate Professor WILSON, and Messrs. HENRY and ROYSTER.
3. Latin Prose Composition: based on Cicero and Livy; intended as supplementary to Latin 1. Open to students who are taking Latin 1 or 2. *Both terms, one hour.* Mr. HENRY.
4. Latin Comedy: reading of selected plays of Plautus and Terence, with a study of the historical development of ancient comedy. Junior and Senior elective. *Both terms, two hours.* Mr. ROYSTER.

This course alternates with course 6; to be omitted in 1914-1915.

5. Pliny, selected *Letters*; Juvenal, *Satires*; Martial, selected *Epigrams*: reading with special reference to the private life of the Romans at the close of the first century A. D. Junior and Senior elective. *Both terms, two hours.* Professor HOWE.

This course alternates with course 9; to be given in 1914-1915.

6. Cicero: rapid reading of the philosophical works, *De Officiis* and *Tusculan Disputations*, and of the rhetorical works, *Brutus* and *De Oratore*. Junior and Senior

elective. *Both terms, two hours.* Associate Professor WILSON.

This course alternates with course 4; to be given in 1914-1915.

7. Roman Political Institutions: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Fall term, two hours.* Professor HOWE.

This course alternates with course 7A; to be omitted in 1914-1915.

- 7A. The Private Life of the Romans: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Fall term, two hours.* Professor HOWE.

This course alternates with course 7; to be given in 1914-1915.

8. History of Roman Literature: lectures. Junior and Senior elective; open also to Sophomores who are taking Latin 2. *Spring term, two hours.* Professor HOWE.

9. Roman Elegiac Poets: rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid; a study of the lives of the elegists; the history of Greek and Roman elegy. Junior and Senior elective. *Both terms, two hours.* Professor HOWE.

This course alternates with course 5; to be omitted in 1914-1915.

10. A Course for Teachers: embracing pronunciation, prosody, the art of reading Latin, and a classification of moods and tenses. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.

13. Indo-European Philology: introductory course. History and methods of linguistic study; growth and classification of the Indo-European languages; linguistic palæontology. Lectures. Junior and Senior elective. *Both terms, two hours.* Associate Professor WILSON.

The attention of students electing this course is called to courses 6 and 8 in the Department of English and to course 6 in the Department of Germanic Languages. The course is the same as Greek 19.

14. Latin Epigraphy and Palæography: a brief introduction to the study of Latin inscriptions and manuscripts.

Lectures and reports. Senior elective. *Fall term, two hours.* Professor HOWE.

The attention of students electing this course is called to course 17 in the Department of Greek.

15. Classical Archæology: History and Principles of Greek and Roman architecture, sculpture, painting, with some account of the minor arts. Lectures with prescribed reading. Junior and Senior elective. *Both terms, two hours.* Associate Professor BERNARD.

This course is the same as Greek 15.

16. Classical Archæology: Ancient Rome and Athens: a brief survey of the topography and monuments of the two cities; lectures with prescribed reading. Junior and Senior elective; open also to Sophomores taking Greek 2 and Latin 2. *Fall term, two hours.* Associate Professor BERNARD.

This course is the same as Greek 16.

For courses 11 and 12, see Graduate School.

A certificate is granted to a student who has completed with credit courses 1, 2, and 3, and six hours of elective work.

DEPARTMENT OF MATHEMATICS

WILLIAM CAIN, A. M., *Professor of Mathematics.*

ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

THOMAS FELIX HICKERSON, A. M., *Associate Professor of Civil Engineering.*

ROBERT LANE JAMES, C. E., *Assistant Professor of Drawing.*

JOHN WAYNE LASLEY, JR., A. M., *Instructor in Mathematics.*

WILLIAM WALTER RANKIN, JR., *Instructor in Mathematics.*

JAMES BLAINE SCARBOROUGH, A. B., *Fellow in Mathematics.*

HUBERT WALTER COLLINS, *Assistant in Surveying.*

1. Algebra: from Quadratics through Theory of Equations (*Fine's College Algebra*); Plane and Spherical Trigonometry and Logarithms. Required of Freshmen.

Both terms, four hours. Professor HENDERSON, Associate Professor HICKERSON, and Messrs. LASLEY and RANKIN.

2. Brief Course in Conic Sections: (Smith and Gale's *Analytic Geometry*); Elementary Course in Differential and Integral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomores in Group 3, elective in Groups 1 and 2. *Both terms, three hours.* Professors CAIN and HENDERSON.
3. Surveying (Raymond) and Higher Surveying, Drawing. Junior and Senior elective; prerequisite, Mathematics 1. *Both terms, three hours.* Professor STACY, Associate Professor HICKERSON, and Mr. COLLINS.
- 3A. Elementary Mechanics (Loney). Junior and Senior elective; prerequisite, Mathematics 1. *Both terms, two hours.* Associate Professor HICKERSON.
- 3B. Graphics: Descriptive Geometry; Shades, Shadows, and Elementary Perspective; lectures, recitations. Junior and Senior elective; prerequisite, Drawing 1. *Both terms, two hours.* Assistant Professor JAMES.
- 3D. Theory of Equations. Sophomore, Junior, and Senior elective; prerequisite, Mathematics 1. *Fall term, two hours.* Professor HENDERSON.
- 3E. Differential Equations: elementary course. Junior and Senior elective; prerequisite, fall term of Mathematics 4. *Spring term, two hours.* Professor HENDERSON.
4. Calculus, Analytic Mechanics. Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.
5. Theory of Equations (Burnside and Pantan). Junior and Senior elective; prerequisite, Mathematics 2. *Both terms, three hours.* Professor HENDERSON.
6. Differential Equations (Murray). Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.* Professor HENDERSON.

7. Road and Railroad Surveying and Engineering. Senior elective; prerequisite, Mathematics 3. *Both terms, three hours.* Professor STACY.
 - 7A. Hydraulics and Sanitary Engineering. Senior elective; prerequisite, Mathematics 4. *Both terms, three hours.* Professor STACY.
 8. Mechanics of Engineering. Senior elective; prerequisite, Mathematics 3A. *Both terms, three hours.* Professor STACY.
 10. Theory of Structures. Senior elective; prerequisite, Mathematics 8. *Both terms, four hours.* Associate Professor HICKERSON.
 11. Retaining Walls and Dams, Arches. Senior elective; prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.
 13. Design of Bridges. Senior elective; to be taken in connection with Mathematics 10. *Both terms, three hours.* Associate Professor HICKERSON.
 16. Highway Location, Construction, and Maintenance. Prerequisite, Mathematics 3. Senior elective. *Both terms, two hours.* Associate Professor HICKERSON.
- For additional courses, see Graduate School.

Drawing

1. This course is designed to give the student who has never handled mathematical drawing instruments a thorough course of instruction in their use, and an undertaking of the elementary principles of mechanical drawing. Instruction in free hand lettering is given in connection with this course. Text-book, French's *Engineering Drawing*. *Both terms, two hours.* Assistant Professor JAMES.
2. Civil Engineering Drawing: (a) Land survey and topographic mapping; (b) Advanced lettering: the Roman and Gothic letters and the arrangement of lettering on

- maps and titles; (c) Structural Drawing: a study of the drawing of girders, trusses and various minor engineering structures. Prerequisite, Drawing 1. *Both terms, two hours.* Assistant Professor JAMES.
3. Machine Drawing: A study of the representation of machine parts; detail and assembly drawings from models and sketches, careful attention being given to billing of material and to standard drawing room practice and systems. The last few weeks of the course are devoted to the study of the elementary principles of mechanism and the solution of several problems based thereon. Prerequisite, Drawing 1. *Both terms, two hours.* Assistant Professor JAMES.
 4. The advanced theory and practice of perspective and its application to engineering structures. Senior elective. Prerequisites, Drawing 1 and Mathematics 3B. *Fall term, two hours.* Assistant Professor JAMES.
 5. Stereotomy: a course in the application of Descriptive Geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers, and culverts. A study of warped surfaces and drawings for the helicoidal arch. Senior elective; prerequisite, Mathematics 3B. *Spring term, two hours.* Assistant Professor JAMES.

DEPARTMENT OF PHILOSOPHY

HENRY HORACE WILLIAMS, A. M., B. D., *Professor of Philosophy.*

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

1. Psychology: lectures, with text-books. Junior and Senior elective. *Both terms, three hours.* Professor CHASE.
2. Logic: lectures, with text-books; the study of logic in life. Junior and Senior elective. *Both terms, two hours.* Professor WILLIAMS.

3. Ethics: criticism and discussions. Junior and Senior elective. *Both terms, two hours.* Professor WILLIAMS.
4. Philosophy: lectures; theses; a study of the forces that shape life. Junior and Senior elective. *Both terms, three hours.* Professor WILLIAMS.
6. A Companion Course to Philosophy 4. The aim of the course is to sketch the forces masterful in modern life. Junior and Senior elective. *Both terms, three hours.* Professor WILLIAMS.
7. Experimental Psychology: a laboratory study of the simpler mental processes. Senior elective; prerequisite, Philosophy 1. *Fall term, three hours.* Professor CHASE.

Laboratory fee, \$3.00.

For course 5, see Graduate School.

DEPARTMENT OF PHYSICS

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

EDWIN FULLER CONRAD, *Assistant in Physics.*

BASCOM LEE FIELD, *Assistant in Physics.*

WILLIAM RENNY HARDING, *Assistant in Physics.*

[For description of Physical Laboratories, see page 223.]

- A. Elementary Physics: lectures, with text-book, weekly written reviews, laboratory work. May be counted for entrance. *Both terms, three hours.* Messrs. CHRISLER and HARDING.

Laboratory fee, \$1.00 a term.

1. General Physics: lectures, with text-book; problems; laboratory work. Required of Sophomores in Group 3; elective in Groups 1 and 2; prerequisite, Mathematics 1. *Both terms, three hours.* Professor PATTERSON and Messrs. CHRISLER, CONRAD, FIELD and HARDING.

Laboratory fee, \$1.50 a term.

2. Modern Electrical Theory: the electron theory, electrolysis, conduction of electricity through gases, electrical nature of matter, radioactivity; lectures and recitations. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.
4. Electricity and Magnetism: lectures and laboratory work. Junior and Senior elective. *Both terms, two hours.* Professor PATTERSON.
Laboratory fee, \$2.00 a term.
5. Descriptive Astronomy: a general course; lectures and recitations with use of lantern slides, telescope, etc. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.
6. Heat and Thermodynamics. Junior and Senior elective; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.

[For courses in Electrical Engineering, see page 47.]

DEPARTMENT OF ROMANCE LANGUAGES

WILLIAM MORTON DEY, Ph. D., *Professor of the Romance Languages and Literatures.*

OLIVER TOWLES, Ph. D., *Associate Professor of the Romance Languages.*

EUGENE FRED PARKER, A. M., *Instructor in the Romance Languages.*

French

- A. Elementary Course: grammar; pronunciation taught by the phonetic method; oral and written exercises; translation and reading at sight. This course may be counted for entrance only. *Both terms, three hours.* Professor DEY, Associate Professor TOWLES, and Mr. PARKER.
1. Continuation of Course A: grammar; composition; reading of modern French literature. Required of Freshmen in Group 3; elective in Group 2; Sopho-

more elective. *Both terms, three hours.* Associate Professor TOWLES and Mr. PARKER.

2. Advanced Course: studies in reading and writing French, and in pronunciation; French phonetics. Sophomore elective in Group 2; Junior and Senior elective; prerequisite, French 1. *Both terms, three hours.* Professor DEY.
3. French Literature: a general outline of its various periods. Lectures, reading, reports. Junior and Senior elective; prerequisite, French 2. *Both terms, three hours.* Associate Professor TOWLES.
- 4A. French Literature in the Seventeenth Century: Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.* Associate Professor TOWLES.
This course alternates with course 4B; to be given in 1914-1915.
- 4B. French Literature in the Eighteenth Century: Lectures, readings, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.* Professor DEY.
This course alternates with course 4A; to be omitted in 1914-1915.
5. French Literature in the Nineteenth Century: Lectures, reading, reports. Junior and Senior elective; prerequisite, French 3. *Both terms, three hours.* Professor DEY.

A certificate is granted to a student who has completed with credit any four courses exclusive of course A.

For courses for graduate students, see Graduate School.

Spanish

1. Elementary Course; grammar; pronunciation; oral and written exercises; translation and reading at sight. Junior and Senior elective. *Both terms, three hours.* Professor DEY.
2. Second Year Course: wide reading of representative writers of the eighteenth and nineteenth centuries;

grammar; composition based on selected texts. Junior and Senior elective; prerequisite, Spanish 1. *Both terms, three hours.* Professor DEY.

3. Spanish Literature in the Sixteenth and Seventeenth Centuries: Cervantes, Lope de Vega, Calderon. Junior and Senior elective; prerequisite, Spanish 2. *Both terms, two hours.* Professor DEY.

Italian

1. Elementary Course: grammar, pronunciation; oral and written exercises; translation and reading at sight. Junior and Senior elective. Prerequisite, French 1. *Both terms, three hours.* Associate Professor TOWLES.

DEPARTMENT OF ZOOLOGY

HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*

WESLEY CRITZ GEORGE, A. M., *Instructor in Zoology.*

[For description of Biological Laboratories, see page 227.]

1. Elements of Zoology: an introductory course giving an outline of the classification and structure of animals, fundamentals of histology, embryology, and physiology with some consideration of biological theories. Lectures with laboratory work. Sophomore, Junior, and Senior elective, and open to First Year Medical students. *Both terms, three hours.* Professor WILSON and Mr. GEORGE.
2. Comparative Anatomy and Embryology of the Vertebrates: dissection of types, especially amphioxus, petromyzon, fish, fowl, mammal; early stages in embryology of ascaris, starfish; segmentation and formation of germ layers in teleost and frog; germ layers and development of characteristic vertebrate organs in chick; selected stages in development of mammal (rabbit, pig); fundamentals of microscopic technique; laboratory work with occasional lectures. Junior and Senior elective. *Both terms, three hours.* Professor WILSON and Mr. GEORGE.

3. **High School Zoology:** a brief course covering pedagogic and laboratory methods requisite to the handling of classes in elementary physiology and zoology. Designed for those who expect to teach in the high schools. Prerequisite, Zoology 1. *Spring term, two hours.* Professor WILSON.
4. **General Zoology:** an advanced course for such as expect to teach or to carry on investigations in zoological, or allied medical, subjects. Laboratory work to cover anatomy, with some histology and embryology, of chief orders of animals, especially invertebrates: collecting trips: identification of forms; essentials of gross and microscopic photography; microscopic technique supplementary to that of the usual courses in embryology and histology. Conferences and lectures dealing with morphology of groups, history of zoology, and the theories of biology as deduced from facts of comparative and experimental study. Junior and Senior elective. *Both terms, five hours.* Professor WILSON.

A certificate is granted to a student who has completed with credit courses 1, 2, 3, 4, and Botany 1.

SCHOOL OF APPLIED SCIENCE

FACULTY

*FRANCIS PRESTON VENABLE, Ph.D., D.Sc., LL.D., PRESIDENT.
ANDREW HENRY PATTERSON, A. M., DEAN.

WILLIAM CAIN, A. M., *Professor of Mathematics.*
COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*
JOSEPH HYDE PRATT, Ph. D., *Professor of Economic Geology.*
CHARLES HOLMES HERTY, Ph. D., *Professor of General and
Industrial Chemistry.*
ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathe-
matics.*
ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*
MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineer-
ing.*
ALVIN SAWYER WHEELER, Ph. D., *Professor of Organic Chem-
istry.*
PARKER HAYWARD DAGGETT, S. B., *Professor of Electrical En-
gineering.*
JAMES MUNSIE BELL, Ph. D., *Professor of Physical Chemistry.*
THOMAS FELIX HICKERSON, A. M., S. B., *Associate Professor
of Civil Engineering.*
ROBERT LANE JAMES, C. E., *Assistant Professor of Drawing.*
VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*
JOHN ELIPHALET SMITH, B. S., *Instructor in Geology.*
JOHN WAYNE LASLEY, JR., A. M., *Instructor in Mathematics.*
WILLIAM WALTER RANKIN, JR., A. M., *Instructor in Mathe-
matics.*
WILLIAM LEWIS JEFFRIES, A. M., *Instructor in Chemistry.*
JAMES TALMAGE DOBBINS, A. M., *LeDoux Fellow in Chemistry.*
CARNIE BLAKE CARTER, B. S., *Fellow in Technical Chemistry.*
VICTOR CLYDE EDWARDS, A. B., *Fellow in Chemistry.*
LELAND BROWN RHODES, B. S., *Fellow in Organic Chemistry.*

*Absent on leave 1913-1914.

FRANK DAVIES CONROY, *Assistant in Chemistry.*
VICTOR ALDINE COULTER, B. S., *Assistant in Chemistry.*
ARTHUR JAMES FLUME, *Assistant in Chemistry.*
WILLIAM AUGUSTUS RUDISILL, B. S., *Assistant in Chemistry.*
JACKSON TOWNSEND, A. B., *Assistant in Chemistry.*
JOHN WESLEY McIVER, S. B., *Assistant in Electrical Engineering.*
ELDRED OSCAR RANDOLPH, A. B., *Assistant in Geology.*
EDWIN FULLER CONRAD, *Assistant in Physics.*
BASCOM LEE FIELD, *Assistant in Physics.*
WILLIAM RENNY HARDING, *Assistant in Physics.*
HUBERT WALTER COLLINS, *Assistant in Surveying.*

COURSES LEADING TO THE DEGREE OF BACHELOR OF SCIENCE

In order to be recommended for the degree of Bachelor of Science, the student must have passed satisfactory examinations in all the studies required in one of the following courses outlined in this department, I, II, III, IV, and V. Each course combines instruction in certain sciences and their application to the arts with certain other general studies deemed essential to a liberal education. These courses are designed to furnish the fundamental instruction and to prepare students to pursue the technical professions to which they lead. The courses leading to the degree are five in number.

1. Bachelor of Science in Chemical Engineering.
- II. Bachelor of Science in Electrical Engineering.
- III. Bachelor of Science in Civil and Highway Engineering.
- IV. Bachelor of Science in Medicine.
- V. Bachelor of Science in Soil Investigation.

ADMISSION

Candidates for admission to the School of Applied Science must present 14 units for unconditioned entrance. A complete list of these units and the requirements in each subject will be found on pp. 32-38 of the general catalogue.

The specific requirements are as follows:

English <i>a, b, c</i> ,	3. units
History <i>a</i> or <i>b</i> ,	2. units
Mathematics <i>a, b, c</i> ,	3. units
French <i>a</i> or German <i>a</i> ,	2. units
Science	1. unit
Elective,	3. units

At least twelve units must be offered at entrance.

I. BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

FRESHMAN YEAR

English 1, Composition	*(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
German 1, Translation and Composition.....	(3)
Chemistry 1, General Chemistry.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR

English 2A, Composition and Literature.....	(3)
Mathematics 2, Analytics and Calculus.....	(3)
Chemistry 3, Qualitative Analysis.....	(2)
Chemistry 4, Quantitative Analysis.....	(3)
Physics 1, General Course.....	(3)
Drawing 2, Mechanical and Topographical.....	(2)

JUNIOR YEAR

Chemistry 16, Inorganic Chemistry, advanced.....	(1½)
Chemistry 2, Technical Chemistry.....	(3)
Chemistry 17, Quantitative Analysis, advanced.....	(3)
Chemistry 5, Organic Chemistry, advanced.....	(3)
Chemistry 7, Elementary Physical Chemistry.....	(3)
Geology 1, General Course.....	(3)
Electrical Engineering 9A, Steam Machinery.....	(1)

SENIOR YEAR

Chemistry 6, History of Chemistry.....	(1)
Chemistry 5A, Organic Chemistry.....	(2)
Select { Chemistry 7A, Physical Chemistry, advanced..	(2)
one { Chemistry 7B, Electro-Chemistry.....	(2)
Chemistry 18, Research.....	(5)
Electrical Engineering 1A, Electrical Energy.....	(3)
Physics 6, Thermodynamics (fall term).....	(1)
Geology 2, Mineralogy	(3)

*Numerals in parentheses indicate the number of hours a week.

II. BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING**FRESHMAN YEAR**

English 1, Composition and Literature.....	(3)
Mathematics 1, College Algebra and Trigonometry.....	(4)
Select { German 1, Composition and Literature.....	(3)
one { French 1, Composition and Literature.....	(3)
Chemistry 1, General Chemistry.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR

English 2A, Technical Composition and Literature.....	(3)
Mathematics 2, Analytics and Calculus.....	(3)
Mathematics 3A, Elementary Mechanics.....	(2)
Physics 1, General Physics.....	(3)
Physics 4, Electricity and Magnetism.....	(2)
Chemistry 3A, Qualitative Analysis.....	(1½)
Chemistry 4A, Quantitative Analysis.....	(1)
Drawing 3, Mechanism and Empirical Design.....	(2)

JUNIOR YEAR

Mathematics 3, Surveying	(2)
Mathematics 3B, Descriptive Geometry	(2)
Mathematics 4, Calculus and Analytic Mechanics.....	(3)
Mathematics 8, Applied Mechanics and Strength of Materials.....	(3)
Physics 6, Thermodynamics	(2)
Electrical Eng'g. 1, Elements of Electrical Eng'g.....	(3)
Electrical Eng'g. 9A, Steam Machinery.....	(1)

SENIOR YEAR

Mathematics 7A, Hydraulics	(3)
Electrical Eng'g. 2A, Alternating Current Circuits.....	(2½)
Electrical Eng'g. 2B, Alternating Current Machinery.....	(1½)
Electrical Eng'g. 3, Electrical Measurements and Testing	(3)
Electrical Eng'g. 4, Dynamo Design.....	(2)
Electrical Eng'g. 5, Illuminating Eng'g.....	(1½)
Electrical Eng'g. 6, Telephone and Telegraph Eng'g....	(1)
Electrical Eng'g. 7, Power Transmission.....	(1)
Electrical Eng'g. 9B, Electric Power Plants.....	(1)

III. BACHELOR OF SCIENCE IN CIVIL AND HIGHWAY ENGINEERING

FRESHMAN YEAR

English 1, Composition	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
Select { French 1, Composition and Translation.....	(3)
one { German 1, Composition and Translation.....	(3)
Chemistry 1, General Course.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR

English 2A, Composition and Literature.....	(3)
Mathematics 2, Analytics and Calculus.....	(3)
Mathematics 3, Surveying.....	(2)
Mathematics 3A, Elementary Mechanics.....	(2)
Physics 1, General Course.....	(3)
Geology 1, General Course.....	(3)
Drawing 2, Mechanical and Topographical.....	(2)

JUNIOR YEAR

Mathematics 3B, Descriptive Geometry.....	(2)
Mathematics 4, Calculus and Analytical Mechanics.....	(3)
Mathematics 7, Road and Railroad Surveying and Eng'g.	(3)
Mathematics 16, Road Construction, Drainage, and Lo- cation	(3)
Geology 8A, Road Materials.....	(1)
Drawing 2, Mechanical and Topographical.....	(2)
Mathematics 8, Mechanics of Engineering.....	(3)

SENIOR YEAR

Mathematics 7A, Hydraulics and Sanitary Engineering	(3)
Mathematics 11, Retaining Walls and Dams; Arches.....	(2)
Mathematics 10, Theory of Structures.....	(4)
Mathematics 13, Design of Structures.....	(3)
Electrical Engineering 1A, Electrical Energy.....	(3)

IV. BACHELOR OF SCIENCE IN MEDICINE

FRESHMAN YEAR

English 1, Composition	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
Chemistry 1, General Course.....	(3)

Botany 1, General Course.....	(3)
Select one { German 1, Composition and Translation.....	(3)
{ French 1, Composition and Translation.....	(3)
{ Latin 1, Grammar and Translation.....	(4)

SOPHOMORE YEAR

English 2, Composition and Literature.....	(3)
Physics 1, General Course.....	(3)
Zoology 1, General Course.....	(3)
Chemistry 3A, Qualitative Analysis.....	(1½)
Chemistry 4A, Quantitative Analysis.....	(1)
Select one { German 1 or 2.....	(3)
{ French 1 or 2.....	(3)
{ Latin 1	(4)
Select one { Drawing 1, Freehand and Mechanical.....	(2)
{ History 1, American.....	(3)
{ Physics 4	(2)

JUNIOR YEAR *

Organic Chemistry, fall term.....	(6)
Toxicology, spring term.....	(6)
Comparative Anatomy, fall term.....	(6)
Human Anatomy	(10)
Histology, fall term	(9)
Embryology, spring term.....	(6)
Pharmacy, spring term.....	(6)

SENIOR YEAR

Human Anatomy, fall term.....	(9)
Neuro-Anatomy, fall term.....	(6)
Bacteriology, fall term.....	(9)
Physiology	(7½)
Physiological Chemistry, fall term.....	(6)
Pathology, spring term.....	(9)
Pharmacology, spring term.....	(10)
Minor Surgery, spring term	(4)

*The Junior and Senior courses are given in the School of Medicine, where descriptions of courses may be found.

V. BACHELOR OF SCIENCE IN SOIL INVESTIGATION**FRESHMAN YEAR**

English 1, Composition	(3)
Mathematics 1, Advanced Algebra and Trigonometry...	(4)
German 1, Translation and Composition.....	(3)
Chemistry 1, General Course.....	(3)
Drawing 1, Freehand and Mechanical.....	(2)

SOPHOMORE YEAR

English 2A, Composition and Literature.....	(3)
Mathematics 3, Surveying	(2)
Chemistry 3, Qualitative Analysis.....	(2)
Geology 1, General Course.....	(3)
Physics 1, General Course.....	(3)
Drawing 2, Mechanical and Topographical.....	(2)

JUNIOR YEAR

Chemistry 4, Quantitative Analysis	(3)
Geology 2, Mineralogy	(3)
Botany 1, General Course.....	(3)
Chemistry 2, Technical	(3)
French 1, Composition and Translation.....	(3)

SENIOR YEAR

Geology 6, Research	(3)
Geology 7, Advanced Physiography	(3)
Geology 8, Origin and Nature of Soils.....	(2)
Chemistry 8, Advanced Quantitative Analysis and Research.....	(5)
Soils of the United States.....	(1½)
Mapping	(2)

COURSES OF INSTRUCTION

Only those scientific and language courses which are specifically required in the School of Applied Science are repeated here. For complete description of other courses, see page 42.

DEPARTMENT OF CHEMISTRY

[For description of Chemical Laboratories, see page 225.]

1. General Descriptive Chemistry: a study of the elements and their compounds, including an introduction to Organic Chemistry; lectures with laboratory work. Required of Freshmen. *Both terms, three hours.* Professor HERTY and Messrs. JEFFRIES, RUDISILL and TOWNSEND.

Laboratory fee, \$1.25 a term.

2. Technical Chemistry: (a) Industrial and Agricultural Chemistry: glass-making, acids, alkalies, phosphates, fertilizers, foods, clothing, hygiene, etc. (b) Metallurgy: mining, treatment of ores, smelting, chlorination, fuel, building materials, etc. Required of Juniors in Courses I and V; prerequisite, Chemistry 1. *Both terms, three hours.* Professor HERTY.

3. Qualitative Analysis: laboratory work with lectures. Required of Sophomores in Courses I and V. *Both terms, two hours.* Professor WHEELER and Mr. FLUME.

Laboratory fee, \$5.00 a term.

- 3A. Qualitative Analysis. The behavior of the elements and their compounds is studied in the laboratory. Practice is given in the analysis of known and unknown mixtures. Laboratory work with lectures. Required of Sophomores in courses II and IV. *Fall term, three hours.* Professor WHEELER and Mr. COULTER.

Laboratory fee, \$7.50.

4. Quantitative Analysis: laboratory work, lectures, and stoichiometric exercises; a grounding in analytical methods. Required of Sophomores in Course I, and of Juniors in Course V; prerequisite, Chemistry 1. *Both terms, three hours.* Professor BELL.

Laboratory fee, \$5.00 a term.

- 4A. Quantitative Analysis: a brief course in gravimetric methods, followed by a more extended course in volumetric methods. Required of Sophomores in courses II and IV. *Spring term, two hours.* Professor BELL and Mr. COULTER.

Laboratory fee, \$4.00 a term.

5. Organic Chemistry. Required of Juniors in Course I; prerequisite, Chemistry 3. *Both terms, three hours.* Professor WHEELER.

Laboratory fee, \$4.00 a term.

- 5A. Organic Chemistry: laboratory work chiefly. This course is designed to give further practice in dealing with organic substances. Required of Seniors in Course I. *Both terms, two hours.* Professor WHEELER.

Laboratory fee, \$6.00 a term.

6. History of Chemistry. Required of Seniors in Course I; prerequisite, Chemistry 5 and 7. *Spring term, two hours.* President VENABLE.

7. Elementary Physical Chemistry. Required of Juniors in Course I; prerequisite, Chemistry 3 and 4. *Both terms, three hours.* Professor BELL.

Laboratory fee, \$2.00 a term.

- 7A. Physical Chemistry: lectures and text-books, with laboratory work. Senior elective in Course I; prerequisite, Chemistry 7. *Both terms, two hours.* Professor BELL.

Laboratory fee, \$2.00 a term.

- 7B. Electro-Chemistry: theory and application of electricity to chemical processes. Senior elective in Course I; prerequisite, Chemistry 3, (or 3A) and 4 (or 4A). *Both terms, two hours.* Professor BELL.

Laboratory fee, \$2.00 a term.

16. Inorganic Chemistry: a detailed study of the reactions of the elements and their compounds; lectures and text-book. Required of Juniors in Course I; prerequisite, Chemistry 3, and 4. *Spring term, three hours.* Professor HERTY.
17. Quantitative Analysis: laboratory work; extension of course 4 along technical lines. Required of Juniors in Course I; prerequisite, Chemistry 3, and 4. *Both terms, three hours.* Professor HERTY.
Laboratory fee, \$5.00 a term.
18. Research. Required of Seniors in Course I; prerequisite, Chemistry 5, 7, and 17. *Both terms, five hours.* Professors HERTY, WHEELER and BELL.
Laboratory fee, \$10.00 a term.

The Journal Club meets fortnightly. The current journals, American, English, German, and French, both the purely scientific and the technical, are reviewed by the students and instructors. Attendance is expected of students in advanced courses.

DEPARTMENT OF ELECTRICAL ENGINEERING

[For description of Electrical Engineering Laboratories, see p. 223.]

1. The Elements of Electrical Engineering: a general survey of the fundamental principles of electrical machinery and apparatus. This course is intended to lay a solid foundation in preparation for the more advanced and specialized courses in the department. The work begins with a thorough study of electric and magnetic circuits. The construction and operating features of direct-current machines are then considered, each machine being treated as a combination of these two circuits. Brief consideration is then devoted to batteries, lamps, and to the systems of power transmission. In the second term the elementary theory of alternating currents is begun, and the method of handling the simpler problems in alternating current circuits is studied. The laboratory work comprises a practical study of circuits and machines, and follows the lecture work closely. Text: Christie's *Electrical*

Engineering. Required of Juniors in Course II. Prerequisites, Mathematics 2 and Physics 1 and 4. *Both terms, three hours.* Professor DAGGETT, and Mr. McIVER.

Laboratory fee, \$3.00 a term.

- 1A. Generation, Transmission and Utilization of Electrical Energy. This course is designed primarily for students of Chemical and Civil Engineering, and aims to give them a knowledge of the principles and operating features of electrical apparatus, including dynamos, transformers, storage-batteries, lamps and measuring instruments, together with such a knowledge of systems of electrical power transmission as will enable the student to handle intelligently any engineering problem involving electrical power. The work includes a study of the fundamental phenomena of direct and alternating current circuits, with especial emphasis on their practical applications. Text: Timbie's *Elements of Electricity* and Clewell's *Laboratory Manual of Direct and Alternating Currents*. Required of Seniors in Courses I and III. Prerequisites, Physics 1 and Mathematics 2. *Both terms, three hours.* Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$3.00 a term.

- 2A. Alternating Currents. The work of this course begins with a review of the electric, magnetic and dielectric circuits, and of the elementary theory of alternating currents. A thorough study is then made of the various methods of solving the more complicated problems of single and polyphase circuits. Considerable time is devoted to the study of the effects of iron cores in alternating current circuits and to the analysis of distorted wave forms. This leads to the study of the transformer which serves as a typical example of the fundamental principles previously developed. Throughout the course extensive use is made of the calculus; at the same time, the importance of a clear physical conception of the various phenomena is emphasized, and graphical solutions by means of vector diagrams

are freely employed as a means of visualizing problems. The laboratory work comprises mainly the study of distorted wave forms of current and e. m. f., poly-phase circuits, and transformer tests. Text-book: Jackson's *Alternating Currents and Alternating Current Machinery*. Required of Seniors in Course II. Prerequisites, Mathematics 4 and Electrical Engineering 1. *Fall term, five hours.* Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$5.00.

- 2B. Alternating Current Machinery: a continuation of course 2A, consisting of a thorough study, from the theoretical and experimental points of view, mainly of the following machines; synchronous alternators and motors; induction motors; induction generators; synchronous converters; series alternating current commutator motors. The theory of each machine is developed from the standpoint of the fundamental laws of the electric and magnetic circuits. From the design constants or the machines in the laboratory is made a predetermination of the performance of each machine, and the laboratory work consists mainly in checking and comparing the actual performance of the machines with the predetermined characteristics. A study is also made of the commercial methods of testing the various machines. Required of Seniors in Course II. Prerequisite, Electrical Engineering 2A. *Spring term, three hours.* Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$5.00.

3. Electrical Measurements and Testing. This course is mainly a laboratory course in general testing. The work in the laboratory consists of the following tests: calibration of instruments; precise measurements of resistance, inductance and capacity; parallel operation of direct current generators, transformers and alternators; efficiency tests; pumping back methods of loading, including a heat run on a transformer; testing of dielectrics, and miscellaneous tests on storage batteries, potential regulators and frequency changers. About

six weeks of the Spring term are devoted to lectures on electro-chemical processes by Professor Bell, supplemented by laboratory work in the construction of standard cells, conductivity measurements and the manufacture of calcium carbide, silicon carbide and the reduction of aluminum. Laboratory Manual: Karapetoff's *Experimental Electrical Engineering*. Required of Seniors in Course II. Prerequisite, Electrical Engineering 1. *Both terms, three hours*. Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$5.00 a term.

4. **Dynamo Design.** An elementary course in the principles of the design of standard electrical apparatus. The aim of the course is not merely to produce complete designs and drawings based on purely empirical formulæ, which have but little significance to the student, but rather to train the student in rational methods of design, based on the same fundamental principles used in his other work. Emphasis is placed on logical analysis of the various problems, both from a theoretical point of view, and in the light of commercial limitations and economic conditions involved in manufacturing. Texts: Gray's *Electric Machine Design* and Hobart's *Dynamo Design*. Required of Seniors in Course II. Open to students who take or have taken Electrical Engineering 2A and 2B. *Both terms, two hours*. Professor DAGGETT.
5. **Illuminating Engineering.** The work of this course begins with a study of the physics of light, including an experimental lecture by Professor Patterson, followed by three lectures on the physiological and psychological aspects of the subject by Professors Manning and Chase. Considerable time is then devoted to the subject of photometry, after which a study is made of modern sources of artificial light. Finally are considered the principles of design of interior and exterior illumination, especial attention being devoted to the conservation of the eyesight, and the attainment of the highest efficiency consistent with the best artistic effect.

Reference books: Barrow's *Light, Photometry and Illumination*, and Steinmetz' *Radiation, Light and Illumination*. Required of Seniors in Course II. Prerequisite, Electrical Engineering 1. *Fall term, three hours.* Professor DAGGETT.

Laboratory fee, \$3.00.

6. Telephone and Telegraph Engineering. This course deals with the principles of the transmission of intelligence by telephone and telegraph, including a brief study of wireless telegraphy. The various parts of the telephone plant are outlined, together with a study of fault location, loading coils, inductive disturbances and composite lines. Lectures and problem work. Required of Seniors in Course II. Prerequisite, Electrical Engineering 1. *Spring term, two hours.* Professor DAGGETT.
7. Electric Power Transmission. A course of lectures and recitations on the design of long distance transmission lines. (a) Economic principles involved in the preliminary design and lay-out. (b) Electrical principles: line materials and constants; regulation; transient phenomena; insulation and lightning protection. (c) Mechanical design: sag of conductors; spans; poles and towers. Text: Still's *Overhead Electric Power Transmission*. Required of Seniors in Course II. Prerequisite, Electrical Engineering 2A. *Spring term, two hours.* Professor DAGGETT.
- 9A. Steam Machinery. A general elementary course in the construction, operation and use of the machinery of modern plants, the main object of the course being to give the student a working knowledge of the apparatus in preparation for course 9B. Some of the subjects considered are the construction, and operation of steam boilers; mechanical stokers; fuels and combustion; draft; feed pumps and feed water heaters; piping systems; construction and operation of the simple slide-valve engine; valves and valve-gears; indicating and governing; condensers; multiple-expansion en-

gines; steam turbines. Text: Spangler, Greene and Marshall's *Elements of Steam Engineering*. Required of Juniors in Courses I and II. Prerequisites, Drawing 1 and Physics 1. *Fall term, two hours*. Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$2.00.

- 9B. Electric Power Plants; a continuation of course 9A from the standpoint of the choice of machines and apparatus, and the layout of the plant as a whole. Considerable attention is devoted to the electrical control apparatus and switch-gear. A brief survey is made of the organization and management of power plants, including the questions of rates and relations to the public. The work will be covered by recitations on the text-book supplemented by lectures, and each student will be required to complete one original design. Text: Meyer's *Steam Power Plants*. Required of Seniors in Course II. Prerequisites, Physics 6 and Electrical Engineering 1 and 9A. *Spring term, two hours*. Professor DAGGETT.

DEPARTMENT OF ENGLISH

1. Types of Literature: the short story, the novel, the essay; the lyric, the epic, the ballad, and the drama. Practical rhetoric and theme writing during the second term. This course lays the foundation for the student's later studies in both literature and composition. Required of Freshmen. *Both terms, three hours*. Professor ROYSTER, Associate Professor BOOKER, and Messrs. SNEATH and STEADMAN.
- 2A. Technical Composition for Engineers. First term: a study of the forms of scientific writing—description, exposition, directions—with the aim of developing clearness, accuracy, and logical thinking. Preparation and criticism of daily and weekly themes, and reading of illustrative literature from engineering magazines. Text-book: Sypherd's *Handbook of English for Engineers*. Second term: History of English Literature. Required of Sophomores in Courses I, II, III, and V. *Both terms, three hours*. Mr. SNEATH.

DEPARTMENT OF GEOLOGY AND MINERALOGY

[For description of Geological Laboratories, see page 228.]

1. **Elementary Geology:** lectures with field work; laboratory work on the common minerals and rocks. Required of Sophomores in Courses II, III and V, and of Juniors in Course I. *Both terms, three hours.* Professor COBB, and Mr. RANDOLPH.

Laboratory fee, \$3.00 for the spring term.

2. **Mineralogy:** crystallography, physical and chemical properties of minerals, blowpipe analysis, determinations; lectures, laboratory, and field work; Dana's *Manual of Mineralogy* (Ford). Required of Juniors in Course V and Seniors in Course I; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, \$5.00 a term.

4. **Economic Geology:** ore deposits, coal, oil and gas, clays, building stone, cement materials, fertilizers, underground waters, etc.; occurrence, methods of exploitation, production and conservation of mineral resources; lectures, laboratory, and field work. Junior and Senior elective; prerequisite, Geology 1 and Chemistry 1, *Both terms, three hours.* Mr. SMITH.

Laboratory fee, \$1.00 a term.

6. **Advanced Field Work and special research in Geology or Geography:** problems and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Course V; prerequisite, two courses in Geology. *Both terms, three hours.* Professor COBB.

8. **Origin and Nature of Soils:** field work, laboratory and theses. Students in this course are expected to keep Saturday open for field work. Required of Seniors in Course V. *Both terms, three hours.* Professor COBB.

Laboratory fee, \$3.00 a term.

- 8A. Road Materials: rocks, sands, clays, asphalts, concrete, dust preventives, etc.; their properties and adaptations; laboratory and field work. Required of Juniors in Course III; prerequisite, Geology 1. *Both terms, one hour.* Mr. SMITH.

Laboratory fee, \$1.00 a term.

10. Soils of the United States: an introductory study of the chief soil provinces, soil series, and soil areas of the United States, with special reference to the soils of North Carolina. Required of Seniors in Course V. *Spring term, two hours.* Professor COBB and Mr. HEARN.
- 10A. Soil Mapping: preparation of large scale soil maps of the Chapel Hill region. Required of Seniors in Course V. *Both terms, two hours.* Professor COBB and Mr. HEARN.
11. Mineral and Ore Deposits: lectures supplemented by laboratory and field work. *Twenty-four lectures (spring term).* Professor PRATT.
12. Advanced Work in Mineralogy. *One hour.* Professor PRATT.

The Geological Seminary meets fortnightly for review and discussion of current geological literature, and for the presentation of original papers.

DEPARTMENT OF GERMANIC LANGUAGES

- A. Elementary Course: grammar; written and oral exercises; translation; sight reading. This course may be counted for entrance only. *Both terms, three hours.* Professor TOY, Associate Professor BROWN, and Assistant Professor RHYNE.
1. Translation, Sight Reading, Composition, Grammar: required of Freshmen in Courses I and V; elective in Courses II, III, IV. *Both terms, three hours.* Professor TOY and Associate Professor BROWN.

DEPARTMENT OF MATHEMATICS

1. Algebra, from Quadratics through Theory of Equations (*Fine's College Algebra*); Plane and Spherical Trigonometry and Logarithms. Required of Freshmen. *Both terms, four hours.* Professor HENDERSON, Associate Professor HICKERSON, and Messrs. LASLEY and RANKIN.
2. Brief Course in Conic Sections: (Smith and Gale's *Analytic Geometry*); Elementary Course in Differential and Integral Calculus (Cain's *Brief Course in the Calculus*). Required of Sophomores. *Both terms, three hours.* Professors CAIN and HENDERSON.
3. (a) Surveying (Raymond), and (b) Higher Surveying. Required of Sophomores in Courses III, and V, and of Juniors in Course II. *Both terms, two hours.* Professor STACY, Associate Professor HICKERSON, and Mr. COLLINS.
- 3A. Elementary Mechanics (Loney). Required of Sophomores in Courses II and III. *Both terms, two hours.* Associate Professor HICKERSON.
- 3B. Graphics: Descriptive Geometry; Shades, Shadows, and Elementary Perspective. Required of Juniors in Courses II and III. *Both terms, two hours.* Assistant Professor JAMES.
4. Calculus, Analytic Mechanics. Required of Juniors in Courses II and III; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.
7. Railroad Surveying and Railroad Engineering. Required of Juniors in Course III; prerequisite, Mathematics 3. *Both terms, three hours.* Professor STACY.
- 7A. Hydraulics and Sanitary Engineering. Required of Seniors in Courses II and III; prerequisite, Mathematics 4. *Both terms, three hours.* Professor STACY.
8. Mechanics of Engineering. Required of Juniors in Courses II and III; prerequisite, Mathematics 3A. *Both terms, three hours.* Professor STACY.

10. Theory of Structures. Required of Seniors in Course III; prerequisite, Mathematics 8. *Both terms, four hours.* Associate Professor HICKERSON.
11. Retaining Walls and Dams; Arches. Required of Seniors in Course III; prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.
13. Design of Bridges. Required of Seniors in Course III; to be taken in connection with Mathematics 10. *Both terms, three hours.* Associate Professor HICKERSON.
16. Highway Location, Construction, and Maintenance. Required of Juniors in Courses III and IIIA. *Both terms, two hours.* Associate Professor HICKERSON.

Engineering Drawing

1. This course is designed to give the student who has never handled mathematical drawing instruments a thorough course of instruction in their use and an understanding of the elementary principles of mechanical drawing. Instruction in free-hand lettering is given in connection with the course. Text book: French's *Engineering Drawing*. Required of Freshmen in Courses I, II, III, V; Sophomore elective in Course IV. *Both terms, two hours.* Assistant Professor JAMES.
2. Civil Engineering Drawing: (a) land survey and topographic mapping; (b) advanced lettering: the Roman and the Gothic letters and the arrangement of lettering on maps and titles; (c) structural drawing: a study of the drawing of girders, trusses, and various minor engineering structures. Required of Sophomores in Course I, III, V; prerequisite, Drawing 1. *Both terms, two hours.* Assistant Professor JAMES.
3. Machine Drawing. A study of the representation of machine parts; detail and assembly drawings from models and sketches, careful attention being given to billing of material and to standard drawing room practice and systems. The last few weeks of the course are

devoted to the study of the elementary principles of mechanism and the solution of several problems based thereon. Required of Sophomores in Course II; prerequisite, Drawing 1. *Both terms, two hours.* Assistant Professor JAMES.

4. Advanced theory and practice of perspective and its application to engineering structures. Senior elective; prerequisite, Drawing 1 and Mathematics 3B. *Fall term, two hours.* Assistant Professor JAMES.
5. Stereotomy: a course in the application of descriptive geometry to the making of drawings for masonry structures, such as intersecting arches and walls, abutments, piers, and culverts; a study of warped surfaces and drawings for the helicoidal arch. Senior elective; prerequisite, Mathematics 3B. *Spring term, two hours.* Assistant Professor JAMES.

DEPARTMENT OF PHYSICS

[For description of Physical Laboratories, see page 223.]

[For courses in Electrical Engineering, see page 85.]

- A. Elementary Physics: lectures, with text-book, written reviews, laboratory work. May be counted for entrance. *Both terms, three hours.* Professor PATTERSON, Messrs. CHRISLER and HARDING.

Laboratory fee, \$1.00 a term.

1. General Physics: lectures, with text-book; problems; laboratory work. Required of Sophomores; prerequisite, Mathematics 1. *Both terms, three hours.* Professor PATTERSON and Messrs. CHRISLER, CONRAD, FIELD and HARDING.

Laboratory fee, \$1.50 a term.

4. Electricity and Magnetism: Lectures, with Laboratory Work. Required of Sophomores in Course II. *Both terms, two hours.* Professor PATTERSON.

Laboratory fee, \$2.00 a term.

6. Heat and Thermodynamics. Required of Juniors in Course II, and of Seniors in Course I; prerequisite, Physics 1. *Both terms, two hours.* Professor PATTERSON.

DEPARTMENT OF ROMANCE LANGUAGES

French

- A. Elementary Course: grammar; pronunciation taught by the phonetic method; oral and written exercises; translation and reading at sight. This course may be counted for entrance only. *Both terms, three hours.* Professor DEY, Associate Professor TOWLES, and Mr. PARKER.
1. Continuation of Course A: grammar; composition; reading of modern French literature. Freshmen elective in Courses II, III, and IV. *Both terms, three hours.* Associate Professor TOWLES and Mr. PARKER.

THE SCHOOL OF EDUCATION

FACULTY

*FRANCIS PRESTON VENABLE, Ph.D., Sc.D., LL.D., PRESIDENT.

MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy and Dean of the School of Education.*

NATHAN WILSON WALKER, A. B., *Professor of Secondary Education.*

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

LOUIS ROUND WILSON, Ph. D., *Professor of Library Administration.*

LESTER ALONZO WILLIAMS, A. M., Pd. D., *Professor of School Administration.*

*ZEBULON JUDD, A. B., *Professor of Rural Education.*

EDGAR RALPH RANKIN, A. B., *Instructor in Education.*

HISTORY AND PURPOSE OF THE SCHOOL

Since the re-organization of the University in 1875, it has always stood for the academic and professional training of young men to teach in the elementary and secondary schools of the state both public and private, and about forty per cent of its graduates, together with many of its undergraduates, have served the state as teachers, principals, and superintendents.

In 1877, during the presidency of Dr. Kemp P. Battle, a summer school for teachers was established at the University. and Dr. Barnas Sears, General Agent for the Peabody Fund, declared "that it was the first summer school for teachers in the Union connected with any university or college."

In 1885, Nelson B. Henry, of Missouri, was elected to the Chair of the Science and Art of Teaching. This was one of the first professorships of education established in the United States. In 1887 the Legislature withdrew the appropriation and the Chair was discontinued.

In 1893, Dr. Edwin A. Alderman was elected Professor of History and Philosophy of Education. Dr. Alderman held

*Absent on leave 1913-1914.

this professorship until he was promoted to the presidency of the University in 1896.

In 1898, Superintendent M. C. S. Noble of the Wilmington, N. C., Public Schools was elected Professor of Pedagogy.

In 1905 Superintendent Nathan Wilson Walker of the Ashboro Public School was elected Professor of Secondary Education, and in 1910 the School was further strengthened by the election of Dr. H. W. Chase as Professor of the Philosophy of Education.

This steady development of the School of Education was recognized by the Peabody Board, in 1912, by a gift of \$40,000 with which an educational building, known as the George Peabody Building, has been built and furnished with all modern conveniences.

In 1913, the trustees elected Professor M. C. S. Noble Dean of the School of Education and established two new professorships,—namely School Administration and Rural Education.

The purpose of the School of Education, in its new building and with its larger faculty, will be to prepare young men for a still broader and more effective service as teachers, principals, and superintendents in the public school systems of the several counties and cities of North Carolina, and also to fit them for progressive leadership in the educational development of state and nation. It also offers graduate courses for those who are already teaching so that they may more thoroughly equip themselves for their work.

ADMISSION

The requirements for admission are the same as for the other Schools in the University,—namely the completion of a four years High School course covering fourteen units.

Students can be admitted with twelve units, removing the conditions of two units during the Freshman year.

After the completion of the Freshman and Sophomore years as laid down in the general catalogue in any of the courses for the A. B. degree, the studies offered in the School of Education may be taken up.

The Committee on Entrance Certificates has the discretionary power to admit certain candidates if, in the opinion of the Committee, the maturity of the candidate, who must be at least

twenty-one years of age, justifies such action. Candidates thus admitted will be classified as special students.

Upon the satisfactory completion of the four years course students will receive the A. B. degree.

CERTIFICATES IN EDUCATION

Requirements for the Certificate in Education

All candidates for the certificate in Education will be required to take not less than fourteen hours from the following:

Elementary Psychology (See Philosophy 1)...	3	hours
Education 1 and 2.....	3	hours
Education 5 and 6.....	2	hours
Education 7	1½	hours
or		
Education 11	2	hours
Education 4	1½	hours
or		
Education 14	2	hours
Education 9 and 10.....	3	hours

COURSES OF INSTRUCTION

The following courses will be offered in Educational Psychology, Practical and Experimental Pedagogy, School Administration, Rural Education, Public School Library Administration, and the History of Education:

1. The Science of Teaching: the practical application of scientific principles to the teaching of elementary branches; a brief study of modern educational theories; preparation of model lessons according to pedagogical principles; lectures, text-books, and theses. Junior and Senior elective, open only to those who intend to teach (not counted for a degree unless Education 2 is also taken.) *Fall term, three hours.* Professor NOBLE.
2. The Art of Teaching: a careful study of the principles and methods involved in successfully teaching those studies usually taught in the best public and private elementary schools; lectures, text-books, and theses. Junior and Senior elective, open only to those who intend to teach; prerequisite, Education 1. *Spring term, three hours.* Professor NOBLE.
3. Science and Practice of Education: a study of modern education from the view-point of both teacher and citizen; the development and arrangement of a High School course of study; lectures, text-books, parallel readings, theses. Junior and Senior elective. *Fall term, three hours.* Professor NOBLE.
4. The General History of Education: the development of educational ideals in the past; the effect of the pedagogical doctrines of the great educators of the past upon modern educational systems; lectures, text-book, parallel readings, criticisms, theses. Junior and Senior elective. *Spring term, three hours.* Professor NOBLE.
5. High School Organization: a study of the organization of the American high school with special attention to

its curricula and methods. Text-books, lectures, and assigned readings. Brown's *The American High School* and De Garmo's *Principles of Secondary Education*. Open to teachers. *Fall term, three hours*. Professor WILLIAMS.

6. High School Administration: a study of the principles and problems of American high school administration. Text-books, lectures, and assigned readings. Hollister's *High School Administration*. Open to teachers; prerequisite, Education 5. *Spring term, three hours*. Professor WILLIAMS.
7. Educational Psychology. The application of the principles of psychology to education. Text, lectures, assigned readings. Prerequisite, Philosophy 1. *Fall term, three hours*. Professor CHASE.
8. Experimental Pedagogy. A laboratory study of some of the simpler scientific educational problems. Senior elective. Prerequisite, Education 7. *Spring term, three hours*. Professor CHASE.
Laboratory fee, \$3.00.
9. Class Management: a study of the actual and ideal working conditions in the classroom. Text-books, discussions, and readings. Junior and Senior elective. Open to teachers. *Fall term, three hours*. Professor WILLIAMS.
10. School Supervision. A discussion of the means, method, and desirable results of school and class supervision, the function of special supervision. Lectures, readings, reports. Junior and Senior elective. Prerequisite, Education 9. *Spring term, three hours*. Professor WILLIAMS.
11. Genetic Psychology. The study of mental development as conditioned by the forces of heredity and environment. The period of adolescence will be stressed. Senior elective, prerequisite, Philosophy 1. *Both terms, two hours*. Professor CHASE.

12. The Philosophy of Education: a study of the underlying principles shaping educational systems, past and present. Seminar course, readings, theses, discussions. Open to graduates only. *Both terms, two hours.* Professor CHASE.
13. American Education: a study of the development of the school systems in the United States, with a comparative study of the principal European systems; research and lectures. *Both terms, two hours.* Professor NOBLE.
14. Current Education: a study of present educational tendencies as seen in typical rural and city school systems, and the development and supervision of the American public school. For teachers who wish to prepare for work as principals and superintendents. Junior and Senior elective. *Both terms, two hours.* Professor NOBLE.
15. History of Modern Education. A comparative study of present day problems in the light of their past. Lectures, discussions, reports. Senior elective; prerequisite, Education 4. Open to teachers. *Both terms, two hours.* Professor WILLIAMS.
16. General Administration: a course demonstrative of how to study and solve administrative problems arising in one's own school. Discussions, reports, theses. Senior elective; prerequisite, Education 5 and 6. *Both terms, two hours.* Professor WILLIAMS.
17. Rural Sociology. Social, economic, industrial, and topographical conditions will be studied as determining the character, organization, and administration of district and county school systems. A survey of an available county along the lines here indicated will be made. Junior and Senior elective. *Both terms, three hours.* Professor JUDD.
18. Rural School Curricula. Lectures, required readings, and discussions. This course will concern itself with the content and organization of courses of study, and

with methods of teaching. Junior and Senior elective.
Both terms, three hours. Professor JUDD.

PHILOSOPHY

1. Elementary Psychology: text, lectures, assigned readings. Junior and Senior elective. *Both terms, three hours.* Professor CHASE.
7. Experimental Psychology: a laboratory study of the simpler mental processes. Senior elective, prerequisite, Philosophy 1. *Fall term, three hours.* Professor CHASE.

Laboratory fee, \$3.00.

LIBRARY ADMINISTRATION

1. School Library Administration: a study of the principles and practical management of school libraries, preparation of debates and debate references, reference books, reading courses and children's readings, book selection and ordering, classification and cataloguing, technical methods; practice in the University library. Junior and Senior elective, open only to library assistants, or to those who take either Education 1 and 2, or Education 5 and 6. *Both terms, two hours.* Professor WILSON.

LECTURE COURSES

From time to time there will be given by instructors in the academic faculty a series of lectures on the teaching of preparatory Latin, Greek, German, French, English, Mathematics, and the sciences.

Professor Walker, State High School Inspector, and Professor L. C. Brogden, Supervisor of Elementary Public Schools, will also deliver lectures on their work in the schools of the state, and all students applying for a certificate in education may attend such lectures as may be agreed upon in conference with the Dean of the School of Education.

CORRESPONDENCE COURSES

Correspondence Courses in North Carolina Geography and History, English Composition, Latin, Greek, German, French

and elementary sciences are being arranged and definite information as to any of these courses may be obtained by addressing the Dean.

THE ARCHIBALD D. MURPHEY EDUCATION CLUB

M. C. S. NOBLE, *President*.

E. R. RANKIN, *Vice-President*.

E. M. COULTER, *Secretary*.

This club meets six times during each scholastic year. The objects of the Club are to interest every member of the University community in the cause of public education at public expense, to begin here at the University among the students a work that shall send them into active life committed to constant effort to place within the reach of every boy and girl in the state a public school education from the first grade in an elementary school to the senior class in any of the state educational institutions, and to keep in touch and sympathy with the County Teachers Association and the public school work in the counties represented by the members of the club.

FREE TUITION

By an act of the Legislature in 1887, free tuition is given to teachers, and to young men preparing to teach. This enables the University to aid effectively the public school teachers of the State.

THE GRADUATE SCHOOL

COMMITTEE

*FRANCIS PRESTON VENABLE, Ph.D., D.Sc., LL.D., PRESIDENT.
CHARLES LEE RAPER, Ph. D., DEAN.
EDWARD KIDDER GRAHAM, A. M.
HARRY WOODBURN CHASE, Ph. D.
HENRY MCGILBERT WAGSTAFF, Ph. D.

FACULTY

WALTER DALLAM TOY, M. A., *Professor of the Germanic Languages and Literatures.*
WILLIAM CAIN, A. M., *Professor of Mathematics.*
HENRY HORACE WILLIAMS, A. M., B. D., *Professor of Philosophy.*
HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*
COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*
MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy.*
GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*
CHARLES HOLMES HERTY, Ph. D., *Professor of General and Industrial Chemistry.*
CHARLES LEE RAPER, Ph. D., *Professor of Economics.*
WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*
ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*
JOSEPH GREGOIRE DE ROULHAC HAMILTON, Ph.D., *Alumni Professor of History.*
ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*
HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of History.*
WILLIAM MORTON DEY, Ph. D., *Professor of the Romance Languages and Literatures.*
MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*
JAMES FINCH ROYSTER, Ph. D., *Professor of English.*

*Absent on leave 1913-1914.

- CHARLES WESLEY BAIN, M. A., *Professor of Greek.*
HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*
ALVIN SAWYER WHEELER, Ph.D., *Professor of Organic Chemistry.*
PARKER HAYWARD DAGGETT, S. B., *Professor of Electrical Engineering.*
JAMES MUNSIE BELL, Ph. D., *Professor of Physical Chemistry.*
EDWIN GREENLAW, Ph. D., *Professor of English.*
LESTER ALONZO WILLIAMS, A. M., Pd. D., *Professor of School Administration.*
THOMAS JAMES WILSON, JR., Ph. D., *Associate Professor of Latin.*
WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*
OLIVER TOWLES, Ph. D., *Associate Professor of the Romance Languages.*
THOMAS FELIX HICKERSON, A. M., S. B., *Associate Professor of Civil Engineering.*
KENT JAMES BROWN, Ph. D., *Associate Professor of German.*
ORESTES PEARLE RHYNE, Ph. D., *Assistant Professor of German.*
JOHN ELIPHALET SMITH, B. S., *Instructor in Geology.*

CANDIDATES FOR GRADUATE WORK

Graduates of the University of North Carolina and of other universities and colleges of good standing are, upon application to the President or Dean, ordinarily admitted to advanced courses of instruction free of charge for tuition. There is, however, a registration fee of fifteen dollars for each term. An applicant for admission, unless a graduate of the University of North Carolina, is required to present his diploma and a certificate of scholarship and character. If in any department the preliminary training of candidates has not been sufficient to qualify them for strictly graduate work, they will be required to take such undergraduate courses as may be prescribed by the head of the department; but these courses will not be counted for hours in work leading to a graduate degree.

Students who are not graduates may, if they prove themselves qualified, take graduate courses; but no graduate degree will be given a student who does not already hold a Bachelor's degree from some institution of approved standing.

All courses must be approved by the President or Dean.

DEGREES

The University offers to graduate students advanced work leading to the degrees of Master of Arts (A. M.), Master of Science (S. M.), and Doctor of Philosophy (Ph. D.).

MASTER OF ARTS

Candidates for the degree of Master of Arts must complete satisfactorily one year of study consisting of at least fifteen hours a week of recitations or lectures, eight hours of which must be taken from courses in the Graduate School, the remaining seven from courses in the Graduate School or from undergraduate courses open to Juniors and Seniors. The candidate must select one major subject, to which he shall devote at least half of his time, and one allied minor subject. He may, with the approval of the Dean and of the professor in charge of his major subject, select a second minor subject. He shall be required to have a reading knowledge of French and German in case the professor in charge of his major subject thinks it necessary for efficient work. The course as a whole must have unity and must be pursued with definite aim.

A thesis based on the major subject of study and showing capacity for original research must be submitted on or before May 1 of the given year, and must be filed in typewritten form on or before May 15.

MASTER OF SCIENCE

The degree of Master of Science is conferred under conditions similar to those stated above for the degree of Master of Arts.

DOCTOR OF PHILOSOPHY

A candidate for the degree of Doctor of Philosophy is required to pursue, in residence at the University, a prescribed course of advanced study and research in one major subject

and two allied minor subjects. In general a term of three years is required, but the degree may be secured in two years in the case of exceptional preliminary training in the major subject.

These requirements of residence and study are, however, entirely secondary. The degree is conferred not simply for faithful study in a determinate field of work for a prescribed period, but because of a high attainment in a special branch of learning, which the candidate must have manifested not only in examination, but by a thesis which gives evidence of independent research and contributes to knowledge. The thesis must be accepted before the candidate may be admitted to examination. The examinations are both written and oral. They demand a minute knowledge of a special field of work as well as a general acquaintance with the department of learning in which the candidate offers himself for the degree. The candidate must also give proof of his ability to read French and German.

COURSES OF INSTRUCTION

DEPARTMENT OF BOTANY

[For description of Biological Laboratories, see page 227.]

2. Physiology: a general course in plant physiology; lectures with laboratory and field experiments. Open to Juniors and Seniors. *Both terms, three hours.* Professor COKER and Mr. TOTTEN.
3. Special Morphology of the Algæ and Fungi, with attention to the culture of lower fungi, and the identification of mushrooms; lectures with laboratory and field work. Open to Juniors and Seniors. *Both terms, three hours.* Professor COKER and Mr. TOTTEN.
4. Plant Morphology: advanced work in the embryology and anatomy of plants. The student is required to collect and prepare material for the microscopic study of special problems. Theses. *Both terms, five hours or more.* Professor COKER.

DEPARTMENT OF CHEMISTRY

[For description of Chemical Laboratories, see page 225.]

11. Research in Inorganic, Analytical, and Industrial Chemistry. This course (with 12 and 13) is intended only for applicants for the degree of Doctor of Philosophy or properly equipped students who desire special training in advanced chemical research. It requires, in addition to the laboratory work, daily conference with the professor and continual reference to the literature touching the matter under investigation. The work is usually assigned by the professor, but by special permission the student may elect to work upon problems to which he wishes to give particular attention. *Both terms, six hours.* Professor HERTY.

Laboratory fee, \$12.50 a term.

12. Research in Organic Chemistry. The statements made in regard to course 11 apply also to this course. *Both terms, six hours.* Professor WHEELER.

Laboratory fee, \$12.50 a term.

13. Research in Physical Chemistry. The statements made in regard to course 11 apply also to this course. *Both terms, six hours.* Professor BELL.

Laboratory fee, \$12.50 a term.

14. Advanced Inorganic Chemistry. The elements are studied with the idea of showing the fundamental laws of Chemistry and the deep-seated relations involved in and leading up to the Periodic System. Attention is also given to those portions of Inorganic Chemistry not usually dwelt upon in the regular courses. The applications of Physico-chemical laws and generalizations are emphasized throughout the course. *Both terms, two hours.* Professor HERTY.

15. Advanced Organic Chemistry: Seminar Course; readings and discussions; a study of class reactions with reference to their application to organic research is taken up, and special attention is given to the most important modern investigations. *Both terms, two hours.* Professor WHEELER.

The *Journal Club* meets fortnightly. The current journals, American, English, German, and French, purely scientific and technical, are reviewed by the students and instructors. Attendance upon the meetings of the Club is expected of all students taking the above courses.

DEPARTMENT OF ECONOMICS

2. Public Finance: a general study of the principles which are involved in the revenues and expenditures of the State, and in the relation of the State to the industries of its citizens; a special study of taxation and the tariff; lectures, readings, and reports; Adams' *The Science of Finance*. Open to Seniors. *Both terms, two hours.* Professor RAPER.

Given in alternate years; to be given in 1914-1915.

3. Economic Institutions and Thought in England and the United States; a general study, largely from the historical point of view, of the economic institutions and the systems of economic thought in England and the United States; a special study of socialism; lectures, readings, and reports; Cheyney's *Industrial and Social History of England*, Brooks' *The Social Unrest*, Spargo's *Socialism*, and the *Communist Manifesto* (Marx and Engels). Open to Seniors. *Both terms, two hours.* Professor RAPER.

EDUCATION

11. Genetic Psychology: the study of mental development as conditioned by the forces of heredity and environment. The period of adolescence will be stressed. Open to Seniors; prerequisite, Philosophy 1. *Both terms, two hours.* Professor CHASE.
12. The Philosophy of Education: a discussion of the underlying principles shaping educational systems, past and present. Seminar course; readings, theses, discussions. *Both terms, two hours.* Professor CHASE.
13. American Education: a study of the development of the school systems in the United States, with a comparative study of the principal European systems; research and lectures. *Both terms, two hours.* Professor NOBLE.
16. General Administration: a course demonstrative of how to study and solve administrative problems arising in one's own school. Discussions, reports, theses. Open to Seniors; prerequisite, Education 5 and 6. *Both terms, two hours.* Professor WILLIAMS.

DEPARTMENT OF ELECTRICAL ENGINEERING

[For Electrical Engineering Laboratories, see page 223.]

- 2A. Alternating Currents. The work of this course begins with a review of the electric, magnetic and dielectric circuits, and of the elementary theory of alternating currents. A thorough study is then made of the

various methods of solving the more complicated problems of single and polyphase circuits. Considerable time is devoted to the study of the effects of iron cores in alternating current circuits and to the analysis of distorted wave forms. This leads to the study of the transformer which serves as a typical example of the fundamental principles previously developed. Throughout the course extensive use is made of the calculus; at the same time, the importance of a clear physical conception of the various phenomena is emphasized, and graphical solutions by means of vector diagrams are freely employed as a means of visualizing problems. The laboratory work comprises mainly the study of distorted wave forms of current and e. m. f., polyphase circuits, and transformer tests. Text-book: Jacksons' *Alternating Currents and Alternating Current Machinery*. Open to Seniors. Prerequisites, Mathematics 4 and Electrical Engineering 1. *Fall term, five hours*. Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$5.00.

- 2B. *Alternating Current Machinery*: a continuation of course 2A consisting of a thorough study, from the theoretical and experimental points of view, mainly of the following machines; synchronous alternators and motors; induction motors; induction generators; synchronous converters; series alternating current commutator motors. The theory of each machine is developed from the standpoint of the fundamental laws of the electric and magnetic circuits. From the design constants of the machines in the laboratory is made a predetermination of the performance of each machine, and the laboratory work consists mainly in checking and comparing the actual performance of the machines with the predetermined characteristics. A study is also made of the commercial methods of testing the various machines. Open to Seniors; prerequisite, Electrical Engineering 2A. *Spring term, three hours*. Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$5.00.

3. **Electrical Measurements and Testing.** This course is mainly a laboratory course in general testing. The work in the laboratory consists of the following tests: calibration of instruments; precise measurements of resistance, inductance and capacity; parallel operation of direct current generators, transformers and alternators; efficiency tests; pumping back methods of loading, including a heat run on a transformer; testing of dielectrics, and miscellaneous tests on storage batteries, potential regulators and frequency changers. About six weeks of the Spring term are devoted to lectures on electro-chemical processes by Professor Bell, supplemented by laboratory work in the construction of standard cells, conductivity measurement and the manufacture of calcium carbide, silicon carbide and the reduction of aluminum. Laboratory Manual: Karapetoff's *Experimental Electrical Engineering*. Open to Seniors; prerequisite, Electrical Engineering 1. *Both terms, three hours.* Professor DAGGETT and Mr. McIVER.

Laboratory fee, \$5.00 a term.

4. **Dynamo Design.** An elementary course in the principles of the design of standard electrical apparatus. The aim of the course is not merely to produce complete designs and drawings based on purely empirical formulæ, which have but little significance to the student, but rather to train the student in rational methods of design, based on the same fundamental principles used in his other work. Emphasis is placed on logical analysis of the various problems, both from a theoretical point of view, and in the light of commercial limitations and economic conditions involved in manufacturing. Texts: Gray's *Electric Machine Design* and Hobart's *Dynamo Design*. Open to Seniors. Open to students who take or have taken Electrical Engineering 2A and 2B. *Both terms, two hours.* Professor DAGGETT.
5. **Illuminating Engineering.** The work of this course begins with a study of the physics of light, including an

experimental lecture by Professor Patterson, followed by three lectures on the physiological and psychological aspects of the subject by Professors Manning and Chase. Considerable time is then devoted to the subject of photometry, after which a study is made of modern sources of artificial light. Finally are considered the principles of design of interior and exterior illumination, especial attention being devoted to the conservation of the eyesight and the attainments of the highest efficiency consistent with the best artistic effect. Reference books: Barrow's *Light, Photometry and Illumination*, and Steinmetz' *Radiation, Light and Illumination*. Open to Seniors; prerequisite, Electrical Engineering 1. *Fall term, three hours.* Professor DAGGETT.

Laboratory fee, \$3.00.

10. General Electrical Engineering. An advanced course in electrical theory, including the study of distributed inductance and capacity, transient phenomena, e. m. f. wave shapes in alternators and synchronous converters and the application of hyperbolic functions to the solution of problems in power transmission and telephone circuits. The work will be covered by lectures, reports on assigned reading and problems. Texts: Steinmetz' *Electric Discharges, Waves and Impulses*, and Kennelly's *The Application of Hyperbolic Functions to the Solution of Electrical Engineering Problems*. Prerequisites, Electrical Engineering 2A, 2B, 6 and 7, and Mathematics 3E or 6. *Both terms, three hours.* Professor DAGGETT.
11. Electrical Engineering Research and Design. The solution of one or more definite problems in some particular field of Electrical Engineering. The work of this course will be outlined, as far as possible, to suit the needs of the individual student, and will consist of original investigations, designs, or the economic study of some existing electric power plant. This course presupposes the completion of the work for the degree of S. B. in Electrical Engineering. *Both terms, three to six hours.* Professor DAGGETT.

DEPARTMENT OF ENGLISH

Candidates for the degree of Doctor of Philosophy who elect advanced work in the English language as their major subject will be expected to take courses in other Germanic languages. All graduate work in the English languages presupposes English 6, or its equivalent, and a reading knowledge of German.

6. **Introductory Course in Old and Middle English:** in the first term a careful study is made of Old English grammar and syntax; a large amount of easy Old English prose is read. Text: Bright's *Anglo-Saxon Reader*. In the second term the grammatical work and the reading are carried on into the Middle English period, with special attention to Chaucer. Texts: Greenlaw's *Selections from Chaucer*; Emerson's *Middle English Reader*. The aim of the course is to acquaint the student with the main facts of the beginning and development of the English language. The language of the older periods is considered in its relations to present day English; many points of confusion in modern English, unexplained by the rules of logical grammar, are made clear. Open to Juniors and Seniors. *Both terms, three hours.* Professor ROYSTER.

The attention of students electing this course is called to course 13 in the Department of Latin and to course 6 in the Department of German.

7. **Advanced Course in Old English and Middle English:** the work of the first term continues the study of Old English grammar, particularly in its relations to that of the other Indo-European languages, and takes up the reading of Old English poetry. A study of Chaucer's minor poems will be the basis of the work of the second term, 1915; prerequisite, English 6, or its equivalent. Open to Seniors. *Both terms, two hours.* Professor ROYSTER.
8. **History of the English Language:** This course supplements English 6. It will trace the growth of the English language from its beginnings in England until today. Junior and Senior elective. *Both terms, three hours.* Professor ROYSTER.

11. English Literature in the Age of Elizabeth. A study of the types of literature, except the drama: the pastoral; the sonnets and other lyrical poetry; the epic; prose fiction (both short story and novel); the essay. The relation between English and continental literature in the Renaissance. Open to Juniors and Seniors. *Both terms, three hours.* Professor GREENLAW.
12. English Classicism. The influence of the classical literatures and criticism from Sidney to Johnson; the pseudo-classic theories of literature and their influence on poetry and the Restoration drama; Milton, Dryden, Pope, Johnson, and their contemporaries. Open to Juniors and Seniors. *Both terms, two hours.* Professor GREENLAW.

This course alternates with English 4; to be omitted in 1914-1915.

DEPARTMENT OF GEOLOGY

[For description of Geological Laboratories, see page 228.]

4. Economic Geology: ore deposits, coal, oil and gas, clays, building stones, cement materials, fertilizers, underground waters, etc.; occurrence, methods of exploitation, production, and conservation of mineral resources; lectures, laboratory, and field work. Open to Juniors and Seniors; prerequisite, Geology 1 and Chemistry 1. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, \$1.00 a term.

5. Petrography: rocks and rock minerals, optical mineralogy, crystallography, etc.; lectures, laboratory work, and theses. Open to Juniors and Seniors. *Both terms, three hours.* Mr. SMITH.

Laboratory fee, \$3.00 a term.

6. Advanced Field Work and Special Research in Geology and Geography: problems assigned individually and work adapted to the professional needs of the student. Students in this course are expected to keep Saturday open for field work. Open to Seniors. *Both terms, three hours.* Professor COBB.

9. Research Course in Historical Geology. *Both terms, three hours.* Professor COBB.

DEPARTMENT OF GERMANIC LANGUAGES

3. History of German Literature: lectures with parallel reading and written reports. Prerequisite, German 2A or 2B. Open to Juniors and Seniors. *Both terms, two hours.* Associate Professor BROWN.

To be omitted in 1914-1915.

4. Middle High German: Paul's *Mittelhochdeutsche Grammatik*; Bachmann's *Mittelhochdeutsches Lesebuch*; translation into New High German. Open to Juniors and Seniors; prerequisite, German 2A or 2B. *Both terms, three hours.* Assistant Professor RHYNE.
5. Old High German: Braune's *Althochdeutsche Grammatik*; Braune's *Althochdeutsches Lesebuch*. Open to Juniors and Seniors; prerequisite, German 2A or 2B. *Both terms, two hours.* Professor TOY.
6. Gothic: Braune's *Gotische Grammatik*; selected parts of Paul's *Grundriss der Germanischen Philologie*. This course is intended to lay the foundation for the philological study of the German dialects. Open to Juniors and Seniors. *Both terms, three hours.* Professor TOY.
- 7A. Goethe: Goetz von Berlichingen, Tasso, Dichtung und Wahrheit, Hermann und Dorothea. In connection with the interpretation of the texts, the life of Goethe will be studied. Selected chapters of Scherer's *History of German Literature*, Francke's *History of German Literature*, and Bielschowsky's *Goethe, Sein Leben und Seine Werke* will be read. Open to Juniors and Seniors; prerequisite, German 2A or 2B. *Both terms, two hours.* Associate Professor BROWN.

This course may be elected only after consultation with the instructor.

- 7B. Goethe's Faust, Parts I and II. Open to Juniors and Seniors; prerequisite, German 2A or 2B. *Both terms, two hours.* Professor TOY.

This course may be elected only after consultation with the instructor.

8. Introduction to Old Saxon. Holthausen's *Altsächsisches Elementarbuch*. Heliand (Behaghel). Prerequisite, German 2A or 2B and English 6. *Both terms, two hours.* Assistant Professor RHYNE.

DEPARTMENT OF GREEK

7. Greek Drama: Euripides, Iphigenia Among the Taurians; Sophocles, Oedipus Tyrannus; Aeschylus, Agamemnon; Aristophanes, Wasps; Aristotle, Poetics. Open to Juniors and Seniors. *Both terms, three hours.* Professor BAIN.
8. Prose Composition: advanced course. *Fall term, two hours.* Professor BAIN.
11. Greek History: the selections from Greek historians in Parts I and II of Baumeister's *Quellenbuch zur Alten Geschichte*. *Both terms, two hours.* Professor BAIN.
12. Bucolic Poetry: the Idylls of Theocritus, Bion, and Moschus. *Both terms, two hours.* Associate Professor BERNARD.
17. Greek Epigraphy and Palæography: a brief introduction to the study of Greek inscriptions and manuscripts, lectures and reports. *Spring term, two hours.* Professor BAIN.

The attention of students electing this course is called to course 14 in the Latin Department.

18. Critical Study of Special Authors: with lectures on Classical Greek Syntax, metres, dialects, oral and written translation into Greek, the history of Athens from the battle of the Arginusæ to the Restoration of the Democracy. *Fourth terms, three hours.* Professor BAIN.

DEPARTMENT OF HISTORY

10. Civil War and Reconstruction: a detailed study of the constitutional, political, and economic phases of the period of the Civil War and Reconstruction: lectures, readings and reports. Open to Seniors. *Both terms, two hours.* Professor HAMILTON.
13. The American Constitution: research in the history of the Constitution of the United States. *Both terms, two hours.* Professor WAGSTAFF.
14. American Politics: lectures and research in the history of political parties of the United States. *Both terms, two hours.* Professor HAMILTON.

DEPARTMENT OF LATIN

5. Pliny: Selected Letters; Juvenal, Satires; Martial, selected epigrams; reading with special reference to the private life of the Romans at the close of the first century A. D. Open to Juniors and Seniors. *Both terms, two hours.* Professor HOWE.

This course alternates with course 9; to be given in 1914-1915.

9. Roman Elegiac Poets: rapid reading of selected elegies of Catullus, Tibullus, Propertius, and Ovid: a study of the lives of the elegists; the history of Greek and Roman elegy. Open to Juniors and Seniors. *Both terms, two hours.* Professor HOWE.

This course alternates with course 5; to be omitted in 1914-1915.

11. The Study of a Particular Author or Period in Roman Literature: practice in rapid reading, with translation of the more difficult passages only. *Both terms, two hours.* Professor HOWE.
12. Lectures on Comparative Syntax of Greek and Latin: principles illustrated from Homer and Terence. *Both terms, two hours.* Associate Professor WILSON.
14. Latin Epigraphy and Palæography: a brief introduction to the study of Latin inscriptions and manuscripts;

lectures and reports. *Fall term, two hours.* Professor HOWE.

The attention of students electing this course is called to course 17 in the Department of Greek.

DEPARTMENT OF MATHEMATICS

4. Calculus; Analytic Mechanics. Open to Juniors and Seniors; prerequisite, Mathematics 2. *Both terms, three hours.* Professor CAIN.
5. Theory of Equations (Burnside and Panton). Open to Juniors and Seniors. *Both terms, three hours.* Professor HENDERSON.
6. Differential Equations (Murray). Open to Seniors. *Both terms, three hours.* Professor HENDERSON.
7. Road and Railroad Surveying and Engineering. Open to Seniors. *Both terms, three hours.* Professor STACY.
- 7A. Hydraulics and Sanitary Engineering. Open to Seniors. *Both terms, three hours.* Professor STACY.
8. Mechanics of Engineering. Prerequisite, Mathematics 3A. Open to Juniors and Seniors. *Both terms, three hours.* Professor STACY.
10. Theory of Bridges. Prerequisite, Mathematics 8. Open to Seniors. *Both terms, four hours.* Associate Professor HICKERSON.
11. Retaining Walls and Dams; Arches. Senior elective; prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.
13. Design of Structures. To be taken in connection with Mathematics 10. *Both terms, three hours.* Associate Professor HICKERSON.
15. Advanced Differential and Integral Calculus. Prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.
17. Vector Analysis. Prerequisite, Mathematics 4. *Both terms, two hours.* Professor CAIN.

18. Modern Synthetic Geometry. Text: Russell. Prerequisite, Mathematics 4. *Both terms, three hours.* Professor HENDERSON.
19. Modern Analytic Geometry. Text: Smith, C. Prerequisite, Mathematics 4. *Both terms, three hours.* Professor HENDERSON.

DEPARTMENT OF PHILOSOPHY

5. Epistemology: a study of the Critical Philosophy; lectures, theses. First term: Prolegomena and Practical Reason and the works that prepared the way for Kant. Second term: *Kritik der reinen Vernunft*. *Both terms, three hours.* Professor WILLIAMS.
6. A Companion Course to Philosophy 4: The aim of the course is to sketch the forces masterful in modern life. Open to Juniors and Seniors. *Both terms, three hours.* Professor WILLIAMS.

DEPARTMENT OF PHYSICS

2. Modern Electrical Theory: the electron theory, electrolysis, conduction of electricity through gases, electric nature of matter, radioactivity. Prerequisite, Physics 1. Open to Juniors and Seniors. *Both terms, two hours.* Professor PATTERSON.
6. Heat and Thermodynamics. Prerequisite, Physics 1 and Mathematics 2. Open to Juniors and Seniors. *Both terms, two hours.* Professor PATTERSON.

DEPARTMENT OF ROMANCE LANGUAGES

3. French Literature: a general outline of its various periods; lectures, reading, reports. Prerequisite, French 2. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor TOWLES.
- 4A. French Literature in the Seventeenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Associate Professor TOWLES.
This course alternates with course 4B; to be given in 1914-1915.

- 4B. French Literature in the Eighteenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Professor DEY.

This course alternates with course 4A; to be omitted in 1914-1915.

5. French Literature in the Nineteenth Century: lectures, reading, reports. Open to Juniors and Seniors. *Both terms, three hours.* Professor DEY.
6. Old French: reading of the oldest texts: La Chanson de Roland; Aucassin et Nicolette; Chrétien de Troyes; lectures on French Phonology and Morphology. Prerequisite, French 2, a knowledge of Latin equivalent to courses 1 and 2 of the Latin Department, and a reading knowledge of German. *Both terms, two hours.* Associate Professor TOWLES.
7. Provençal: a study of the ancient language and literature of Provence. Prerequisite, course 6. *Both terms, two hours.* Professor DEY.

DEPARTMENT OF ZOOLOGY

[For description of Biological Laboratories, see page 227.]

2. Comparative Anatomy and Embryology of the Vertebrates; dissection of types, especially amphioxus, petromyzon, fish, fowl, mammal; early stages in embryology of ascaris, starfish; segmentation and formation of germ layers in teleost and frog; germ layers and development of characteristic vertebrate organs in chick; selected stages in development of mammal (rabbit, pig); fundamentals of microscopic technique; laboratory work with occasional lectures. Open to Juniors and Seniors. *Both terms, three hours.* Professor WILSON and Mr. GEORGE.
4. General Zoology: an advanced course for such as expect to teach or to carry on investigations in zoological, or allied medical, subjects. Laboratory work to cover anatomy, with some histology and embryology, of chief orders of animals, especially invertebrates; collecting trips; identification of forms; essentials of gross and microscopic photography: microscopic technique sup-

plementary to that of the usual courses in embryology and histology. Conferences and lectures dealing with morphology of groups, history of zoology, and with the theory of biology as deduced from facts of comparative and experimental study. Opens to Juniors and Seniors. *Both terms, five hours.* Professor WILSON.

5. **Animal Morphology:** detailed study of problems in microscopic anatomy and embryology, chiefly comparative, in part experimental; laboratory work with use of classical text-books and original memoirs; theses. *Both terms, five hours or more.* Professor WILSON.

PART THREE

**PECUNIARY AID AND EXPENSES
MEDALS AND PRIZES
REGULATIONS**

PECUNIARY AID AND EXPENSES

FELLOWSHIPS AND SCHOLARSHIPS

THE LEDOUX FELLOWSHIP IN CHEMISTRY. (Established in 1911 by Dr. Albert R. LeDoux.) The holder is expected to devote himself to research in chemistry. This fellowship is endowed and yields \$300 annually.

A FELLOWSHIP IN TECHNICAL CHEMISTRY, established in 1911, is offered to graduate students for research in technical chemistry. This fellowship yields \$200 annually.

A FELLOWSHIP IN ORGANIC CHEMISTRY is offered to graduate students for research in Organic Chemistry. This fellowship yields \$300 annually.

THE LIBRARY FELLOWSHIPS, two in number, established in 1907, yield each \$150 annually. The holders are expected to assist in the Library.

THREE TEACHING FELLOWSHIPS, established in 1907, yield each \$200 annually. The holders are expected to assist in the work of instruction in the departments to which the fellowships are assigned.

THE CAMERON SCHOLARSHIPS. (Established in 1892.) The heirs of Paul Carrington Cameron founded, in his memory, ten scholarships of the value of sixty dollars each.

THE DIALECTIC AND PHILANTHROPIC LITERARY SOCIETIES' SCHOLARSHIPS. (Established in 1893.) The Dialectic and Philanthropic Literary Societies of the University founded two scholarships of the value of sixty dollars each, recipients of which shall give assistance in the Library.

THE MOORE SCHOLARSHIPS. (Established in 1881.) Bartholomew Figures Moore, of Raleigh, bequeathed five thousand dollars, the interest of which shall be devoted to paying the tuition of students.

THE MARY ANN SMITH SCHOLARSHIPS. (Established in 1891.) Miss Mary Ann Smith bequeathed thirty-seven thou-

sand dollars for the foundation of scholarships, the number of scholarships to be determined by the amount of the income.

THE MARY RUFFIN SMITH SCHOLARSHIPS. (Established in 1885.) Miss Mary Ruffin Smith bequeathed to the University, in memory of her brother, Dr. Francis Jones Smith, a valuable tract of land in Chatham county of fourteen hundred and sixty acres, known as Jones's Grove. The will provides that rents of the land, or the interest on the purchase money, if sold, shall be used to pay the tuition of such poor students as the Faculty shall appoint.

THE SPEIGHT SCHOLARSHIPS. (Established in 1892.) The late Mrs. Mary Shepard Speight bequeathed ten thousand dollars to the University. The income shall be used to pay the tuition of needy students; but if tuition is ever made free, the income shall be used toward paying the salaries of the professors.

THE WOOD SCHOLARSHIP. (Established in 1892.) Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her late husband, Dr. Thomas Fanning Wood, a scholarship of the value of sixty dollars.

THE WEIL SCHOLARSHIP. (Established in 1898.) A fund established by Mr. Henry Weil, of Goldsboro, furnishes one scholarship of the value of sixty dollars.

THE ARMFIELD SCHOLARSHIPS. (Established in 1901 and 1904.) These scholarships are founded by the generosity of Mr. Eugene M. Armfield, of the class of 1888, High Point, N. C.

THE ALUMNI SCHOLARSHIPS. These scholarships have been established by the gifts of Alumni. A scholarship will be awarded for each one thousand dollars given.

THE KENNETH MURCHISON SCHOLARSHIPS. (Established in 1904.) These scholarships have been founded by Mrs. Shirley Carter, of Baltimore, Md., and Mrs. James Sprunt, of Wilmington, N. C., in memory of their father. They are awarded by the founders.

THE BABBITT SCHOLARSHIP. (Established in 1910.) This scholarship was founded by the Babbitt Corporation. It is

awarded annually by Professor Herty to that member of the incoming Senior Class who has made the best record in the Department of Chemistry. The holder of this scholarship is required to investigate during the Senior year some subject connected with the chemistry of the oleoresins. The scholarship yields annually \$250.

None of these scholarships is open to students in the professional Schools of Law, Medicine, and Pharmacy.

All applications for scholarships must be filed in the President's office on or before August 15, and must be in the regular form prescribed by the University. Blank forms are supplied on application to the President.

FREE TUITION

By an act of the Legislature in 1887, free tuition is given to candidates for the ministry, to the sons of ministers, to young men under bodily infirmity, to teachers, and to young men preparing to teach. In order to secure this free tuition, young men preparing to teach must agree to teach in North Carolina for at least two years after leaving the University. This enables the University to aid effectively the public school teachers of the State.

LOAN FUNDS

THE DEEMS FUND. (Established in 1879.) A fund of six hundred dollars was established by Rev. Charles Force Deems, D. D., late pastor of the Church of the Strangers, New York City, formerly a professor in the University, in memory of his son, Lieutenant Theodore Disosway Deems. In 1881 the gift was greatly enlarged through the munificence of Mr. William H. Vanderbilt, by a gift of ten thousand dollars, "as an addition to the Deems fund, to be loaned to indigent students of the University."

THE MARTIN FUND. This fund has been established by the bequest of Mr. Thomas D. Martin, of Raleigh. Only the interest of the fund can be used for loans. It became available during the session of 1907-1908.

All applications for loans must be filed in the President's office on or before August 15.

Applications for loans will not be considered unless accompanied by testimony from responsible persons as to poverty and merit. The funds are limited in amount and are loaned only on the security of two approved signatures and at the legal rate of interest.

EXPENSES •

Every effort is made to reduce to the lowest point the necessary expenses of an education at the University. The charges for each of the two terms are as follows:

Tuition fee	\$30.00
Fee for Matriculation *	15.00
<hr/>	
Total.....	\$45.00

Students taking courses in the laboratories are charged a small fee for materials. Every student must keep on deposit with the Treasurer two dollars as security for damages. Willful damage to University property is charged to the perpetrator, if known; otherwise it is charged to the general deposit for damages. Any balance is returned to the student at the end of the year.

Excellent board is furnished at Swain Hall for twelve and a half dollars a month. A few students can earn their board by waiting on the tables. The entire annual expenses need not exceed three hundred dollars, and they may be reduced to two hundred dollars.

It is confidently believed that no institution offers wider opportunities for self help to meritorious students of slender means. The desire is that no worthy boy, however poor, shall ever be turned away for lack of means. To such the University and town offer unusual opportunities for support. Many students are now working their way through college by every form of honorable labor. A number are here as a result of money earned or borrowed. Seventy are aided by loans, and about five hundred have received aid from the University in loans and scholarships in the past twenty years. A few students are selected by the authorities as waiters at Swain Hall. Otherwise all opportunities available in the University and

* This fee includes also the gymnasium fee, the library fee, the fee for the attendance of the University physician and of the University nurse, and the fee for athletics.

town must be secured by the personal efforts of the individual, or with the assistance of the Faculty Committee on Self-Help. They are not assigned by the President.

DORMITORY ACCOMMODATIONS

The University buildings contain rooms available for the accommodation of something over three hundred students. There is no charge for service in addition to the rent. All rooms are fitted with electric lights. Room rent ranges from seventy-five cents to \$6.00 a month for each occupant, the price depending upon the location of the room. Battle, Vance, Pettigrew, Smith, Carr, Old East, the Inn dormitories contain furnished rooms.

All the buildings of the University are heated by hot water according to the most improved methods. In the dormitories the charge for light and heat will be \$2.00 a month for each room.

MEDALS AND PRIZES

THE COLONIAL DAMES PRIZE. (Established in 1908.) The North Carolina Society of Colonial Dames offers annually a first prize of fifty dollars and a second prize of twenty-five dollars for the best essays on some subject connected with the Colonial Period of North Carolina.

THE LITERARY ESSAY MEDAL. (Established in 1890.) A gold medal is offered annually by Professor Thomas Hume to that member of the Senior Class who shall present the best essay or thesis on some distinctly literary subject.

THE MANGUM MEDAL IN ORATORY. (Established in 1878.) A gold medal founded by the Misses Mangum, late of Orange county, in memory of their father, Willie Person Mangum, is continued by his granddaughters, Mrs. Julian A. Turner, Mrs. Stephen B. Weeks, and Miss Preston Leach, and awarded to that member of the Senior Class who shall deliver the best oration at Commencement.

THE BINGHAM PRIZE IN DEBATE. (Established in 1899.) This prize is offered by Mr. R. W. Bingham in memory of his great-grandfather, grandfather, father, and brother. It is given annually for excellence in debate. The contestants are representatives of the Literary Societies, and the contest is held on Tuesday evening of Commencement week.

THE KERR PRIZE IN GEOLOGY AND MINERALOGY. (Established in 1889.) A prize of fifty dollars is offered annually by Mr. William H. Kerr in memory of his father, Professor Washington Caruthers Kerr, to any undergraduate or graduate student, for the best thesis containing original work in the geology or mineralogy of North Carolina.

THE EBEN ALEXANDER PRIZE IN GREEK. (Established in 1887.) A prize of ten dollars is offered annually to that member of the Sophomore Class who shall present the best rendering into English of selected passages of Greek not previously read.

THE WORTH PRIZE IN PHILOSOPHY. (Established in 1883.) Mr. Charles Williams Worth, in memory of his father, David Easton Worth, of the class of 1853, will print the best thesis submitted by a student in Philosophy 4.

THE EARLY ENGLISH TEXT SOCIETY PRIZE. (Established in 1886.) A special prize is offered annually by the Early English Text Society, of London, for advanced work in Anglo-Saxon and Middle English.

THE BRYAN PRIZE. (Established in 1903.) A prize will be given annually by Mr. William Jennings Bryan for the best thesis in Political Science.

THE HUNTER LEE HARRIS MEMORIAL. (Established in 1903.) Dr. Charles Wyche, of St. Louis, offers annually, in memory of Hunter Lee Harris, of the class of 1893, a gold medal for the best original story by any student in the University.

THE THOMAS HUME PRIZE. (Established in 1904.) A prize of fifty dollars is offered annually by Mr. W. G. Peckham, of New York, for the best work in the Old English Ballads and Shakespeare or Milton.

THE WILLIAM CAIN PRIZE IN MATHEMATICS. (Established in 1908.) A gold medal is offered annually by Professor William Cain to that student who shall take the highest rank in Mathematics 4. No student will be recommended for the prize unless he attain to grade 2.

THE PRESTON CUP, given by the Hon. E. R. Preston, in memory of his brother, Ben Smith Preston, will be awarded annually to the undergraduate student who during the months September to April has done the best work of a journalistic nature.

Certain prizes are offered also in the Professional Schools of Law, Medicine, and Pharmacy. For these, see under the several schools.

REGULATIONS

REGISTRATION

All students are expected to present themselves for registration on *Monday, Tuesday, or Wednesday, September 7, 8, or 9, 1914*, and *Monday or Tuesday, January 4 or 5, 1915*, between the hours of 9 A. M. and 4 P. M., at the office of the Registrar.

ARRANGEMENT OF COURSES

Every student, when he presents himself for registration, must submit a list of courses, required and elective, which he desires to pursue.

No student will be allowed to take less than 15 hours nor more than 18 hours of class-room work a week without special permission of the Faculty or of the President.

Students desiring to change their courses must make written application to the Committee on Courses for the desired change. The application will be considered by the committee and the instructors in the departments concerned and will be granted only after a careful consideration of the facts in each case. No changes will be permitted after the first Tuesday following the registration days except such as are granted after application to, and approval by, the Faculty.

Candidates for more than one degree shall not offer the same elective in two courses nor a required study in one course as an elective in another.

ASSIGNMENT OF ROOMS

The University buildings contain one hundred and sixty-five furnished double rooms, eight single furnished rooms, and eighty-two double unfurnished rooms available for the accommodation of students. These rooms are assigned to students by the Treasurer, at the beginning of each term, in the order of application.

The President reserves the right to require any student whom for any reason he considers an undesirable tenant to vacate a room in the University buildings.

All occupants are required to sign a contract subject to the following special rules:

In order to retain his room for the next session, a student must file with the Treasurer before May 20th a room contract properly signed. Double rooms must be signed for by both intending occupants. The rooms thus signed for will be retained until August 31st provided a deposit of \$5 be paid by each intending occupant before August 15th. The \$5 deposit will be forfeited in case the signer or signers do not themselves occupy the room and pay the full rent. Rooms not signed for or forfeited by failure to pay at the proper date will be assigned in the order of application. No dogs shall be kept in the University dormitories. Breach of this regulation leads to forfeiture of the room.

The right to occupy a room is not transferable and terminates with the expiration of the lease. Any attempt on the part of an occupant of a room to sell or transfer his right to occupancy shall be deemed a fraudulent transaction. The penalty of violating this rule shall be the forfeiture of the room by the new lessee.

The occupant of a room will be held directly responsible for any damage done to the furniture supplied in his room by the University.

CONDUCT

By order of the Board of Trustees the Faculty is directed to dismiss from the University any student who is known to engage in drinking intoxicating liquors, gambling, hazing in any form, (presence at hazing is regarded as participation), or to be guilty of dissolute conduct.

Students persistently neglectful of duty, or addicted to boisterous conduct or rowdiness, may be requested to leave the University.

ATTENDANCE

Regular attendance upon lectures and recitations is required of all students.

In any term, absences are counted from the first regular meeting of each class. In no case will a student be considered present at any class until he has been registered as a member of that class. No student will be allowed more than five unex-

cused absences during a month. When this number is exceeded he will be placed on probation, and notified that any further unexcused absences on his part during the next month may necessitate his withdrawal from college. This notice will be sent to his parents or guardian also.

Any student whose absences from a class during any month equal the number of scheduled meetings of the class for one week is required to stand a special examination on that month's work within the first two weeks of the succeeding month at an hour to be announced by the instructor. In the case of those whose absences in a given month reach the number indicated above, and who fail to stand the examination provided for such absences, it is left to the discretion of the instructor to retain them in his class.

Students who are absent from a class during the months of December, January, or May as much as 25 per cent. of the scheduled meetings of the class must stand an examination for these months before being entitled to any grade on the term examination. This special examination is to be held in connection with the regular term examinations, or at some time during the examination period.

Students who are absent during any term as much as $33\frac{1}{3}$ per cent. of the scheduled meetings of the class, except in case of prolonged sickness necessitating at least half the absences, may at the discretion of the instructor be debarred from the term examination.

Attendance at Chapel is compulsory for all students in the University except for members of the professional departments and for such others as are specially excused. Absence from Chapel will subject the student to discipline by the Executive.

No student is allowed to absent himself from the University without written permission from the President or his representative. This permission may, at the discretion of the executive officer, be granted only upon the formal request of the parent or guardian.

EXAMINATIONS

Regular examinations on all subjects are held at the close of each term. Excuses from examinations are granted only in case of absolute necessity. Such an excuse, to be valid, must

be obtained from the President by the day of examination, and communicated officially to the instructor holding the examination.

Freshmen, Sophomores, and Juniors who have been excused from an examination or have received the grade 5 (see page 138) in any subject will be given one, and only one, opportunity to make good the deficiency by special examination. Examinations on the Fall term of a subject may be made good either in the following September, according to the schedule given below, or at the regular examinations of the next lower class in January. Examinations on the Spring term of a subject may be made good either in the following September, according to the schedule given below, or at the regular examinations of the next lower class in May. In case a student fails in the special examination, he must repeat the subject with the class of the succeeding year. If the unremoved condition be in an elective subject not offered for the succeeding year, the student must take another elective valued at the same number of hours.

Seniors who have been excused from an examination or have received the grade 5 in any subject at either the Fall or Spring examination will be given but one opportunity to make good the deficiency by special examination, viz., during the regular examination period of the three lower classes in May.

Papers handed in at special examinations by students who have been officially excused from the regular examination will be graded. All others will be marked either "passed" or "failed." Students who hand in papers at regular examinations are considered to have relinquished any claim to grades on special examinations.

Students who absent themselves from regular examinations without having obtained an official excuse, and those who are present at the regular examinations but do not hand in papers, are given the grade 6 (see page 138). They are required to repeat the subject with the next lower class, or, in case of an elective not offered in the succeeding year, to take another elective valued at the same number of hours.

A student wishing a special examination in any subject must deposit an application in the office of the Registrar at least one week before the beginning of the period of examinations.

Each student is required to subscribe his name to the follow-

ing pledge on every paper: "*I hereby certify that during this examination I have neither given nor received aid.*" No paper without the pledge will be read.

The order of examinations for the removal of conditions in September, 1914, will be as follows:

Wednesday, September 2.

10 A. M.	Physics.	2:30 P. M.	Chemistry.
	Greek.		History.
			Economics.

Thursday, September 3.

10 A. M.	English.	2:30 P. M.	Zoology.
			Botany.

Friday, September 4.

10 A. M.	German.	2:30 P. M.	Mathematics.
	French.		

Saturday, September 5.

10 A. M.	Latin.	2:30 P. M.	Geology.
	Philosophy.		Education.

STANDING

Semi-annual reports of the standing of all students in all the studies of the previous term are sent to parents or guardians. The reports are based upon the following system of marking:

Grade 1,	95-100	per cent.
Grade 2,	90-95	per cent.
Grade 3,	80-90	per cent.
Grade 4,	70-80	per cent.
Grade 5,	60-70	per cent.
Grade 6,	below 60	per cent.

Students must attain a grade of 4 to pass in any study. Grade 5 indicates that the student is conditioned, but may remove the deficiency by special examination, as explained on page 137. Students receiving grade 6 in any study must take such study again with the next lower class, or in case of an elective not offered in the succeeding years, must take another elective valued at the same number of hours.

A student who has failed on all the examinations of the year in any college study may not take a higher class in that department, until he makes good his deficiency.

A student to be ranked as a Sophomore must have passed twelve hours of work; to be ranked as a Junior, twenty-four hours; to be ranked as a Senior, forty-two hours.

No Freshman who fails to pass at least six hours, and no Sophomore or Junior who fails to pass nine hours shall be re-admitted to the College the following year except by a special vote of the faculty or a delegated committee of the faculty.

In addition to the semi-annual reports, there are sent out during the session six monthly reports in which the standing of students is indicated in a general way.

CERTIFICATES

A certificate is granted to a student who has completed with credit, in any department except those of Mathematics, Chemistry, Physics, and Geology, all work required for a degree together with elective work in the same department. (For detailed statement of requirements, see under the several departments of instruction.)

GRADUATION

Each Senior will be officially informed by the Registrar in August of all deficiencies standing against him.

The number of orations in the contest for the Mangum Medal is limited to four. The candidates must be members of the College or the School of Applied Science, and must announce their subjects to their respective Deans by February 1. The orations shall be delivered in private before a committee of the Faculty on May 1, who shall decide upon the relative merits of the orations. The four successful candidates are known as the Commencement Orators of the Senior Class.

ATHLETIC AND OTHER ORGANIZATIONS

No student will be allowed to take part in athletic contests, concerts, debates, etc., entailing absence from the University, whose parent or guardian objects to such participation.

A student who was in attendance upon the University during a previous term or session must have passed satisfactory examinations upon at least eight hours of work before he will be

allowed to represent the University in any athletic contest or in any other public capacity.

No student reported as deficient in a majority of his classes may participate in any athletic contest or otherwise publicly represent the University, until the deficiency is made good.

No team or club will be allowed to be absent from the University for more than ten lecture days during the term.

The manager of each athletic team or musical club shall submit to the Athletic Committee or to the President a schedule of all engagements before positive arrangements are made.

The faculty regulations governing athletics are as follows:

1. No student whose parents or guardian object to his participation in athletic contests shall be allowed to take part in such contests.

2. No student shall play upon the University athletic teams except after physical examination by the Director of the Gymnasium (or by a responsible expert officer of the University acting in his stead and by his request) and with the approbation of the Director.

3. A student who was in attendance upon the University during a previous term or session must have passed satisfactory examinations upon at least eight hours of work before he will be allowed to represent the University in any athletic contest.

4. Inasmuch as a member of an athletic team of this University is a representative student and enjoys special honor in thus representing the University, this privilege shall be withheld from any student whose scholastic standing is discreditable. A preliminary report of the scholastic standing of the members of the football team shall be called for on October 15th, and of the baseball team on March 15th, and the players notified of their deficiencies. Another report shall be called for on November 15th for the football team and on April 15th for the baseball team, at which time any player deficient in a majority of his studies shall be debarred from representing the University during the remainder of the term.

5. The members of any athletic team may be allowed not more than ten lecture days leave of absence from the University for the purpose of engaging in athletic contests; but no student who is a member of more than one athletic team

shall be allowed more than twenty lecture days leave of absence during the entire session for such purpose.

6. The manager of each athletic team shall submit to the Faculty Committee on Athletics or to the President a schedule of all engagements before positive arrangements are made.

7. Before any student can become a member or a substitute member of any athletic team in the University and take part in any intercollegiate contests he must make application to the Faculty Committee on Athletics in the University and secure the endorsed approval of that Committee to his application. It shall be the duty of the Faculty Committee on Athletics to have the Executive officers of the University endorse such application to the effect that the applicant is a registered student of the University.

8. It shall be the duty of the Faculty Committee on Athletics to inquire into and make a record of the athletic experiences of the applicant, and it shall be the duty of the applicant to appear before the Committee and answer on his honor such questions as the Committee may see fit to ask.

9. It shall be the duty of the Faculty Committee on Athletics to require a pledge in writing of the applicant, certifying on his honor that he has never accepted, directly or indirectly, remuneration, compensatory gift, valuable consideration, or promise thereof, for his athletic services, and that he is in the proper and strict sense of the word an amateur player in collegiate athletic sports, before the Committee endorses his application.

10. It shall be the duty of the Graduate Manager, the Head Coach, the President and the Treasurer of the Athletic Association, the members of the Athletic Council, the Director of the Gymnasium, and the Manager and the Captain of the team concerned to furnish the Faculty Committee on Athletics, on request, a statement to the effect that each member of an athletic team is above their suspicion as to his eligibility to represent the University as an amateur player before such player shall be allowed to take part in any contest.

11. No student who has been a member of, or substitute*

* The term "substitute" is interpreted to mean a student who has taken part in two or more intercollegiate contests.

member of, the football or baseball team of another college† or University during the preceding college year‡ shall be permitted to become a member of either team of this University during his first session, with the following exception: Such student shall be eligible for these teams at this University if he shall have registered in this University not later than within one week after the opening of the preceding spring term, and shall have been a student here during the said term.

12. No person whose name appears in the catalogue list of officers of instruction and administration of the University, and who receives remuneration therefrom, shall be a member of any athletic team representing the University.

13. The maximum period of eligibility for baseball and football shall be four years. In estimating the period of eligibility the years of baseball and football shall both be taken into account; but in no case shall a player be charged with four years' athletic work, unless at least four calendar years have elapsed from the time he entered upon his first intercollegiate contest, omitting from the calculation any sessional intermission by non-attendance. In case the player does not participate in either baseball or football during a college session, such session shall not be counted, but if such player does play on either the baseball or football team during any intermediate session, this shall count as if the player had played on both teams during such session.

14. No student of this University shall be eligible for any athletic team who shall have played upon, or been a member or substitute member of any of the professional or league teams named in Classes A, B, C, and D, in the publication of the American Sports Company. To the list of professional teams thus prescribed shall be added all league teams in any state or states, which the leading university of such state or states declares professional and from which it debarb its own players.

15. The Faculty Committee on Athletics is directed to assume responsible charge of the details of the athletic situation and to permit the playing of intercollegiate games with

† The term "college" is hereby interpreted to mean any college named in Table 28 of the Report of the U. S. Commissioner of Education of 1902, which has not fewer than 150 male students of collegiate grade recorded in the catalogue of the institution in question as students of the college year preceding the applicant's entrance into the University.

‡ The college year consists of one session divided into two terms.

such colleges only as express a general conformity with the code of rules adopted by this faculty. The term "general conformity" is interpreted to mean conformity in regard to period of residence, maximum period of eligibility, and amateur standing.

FRATERNITIES

Undergraduate students may join fraternities after registration in their Sophomore year. Fraternity men are not allowed to pledge Freshmen to join fraternities.

PART FOUR

**THE SCHOOL OF LAW
THE SCHOOL OF MEDICINE
THE SCHOOL OF PHARMACY
THE SUMMER SCHOOL FOR TEACHERS
THE BUREAU OF EXTENSION**

THE SCHOOL OF LAW

*FRANCIS PRESTON VENABLE, Ph.D., D.Sc., LL.D., PRESIDENT.
LUCIUS POLK MCGEHEE, A. B., DEAN.

LUCIUS POLK MCGEHEE, A. B., *Professor of Law.*

PATRICK HENRY WINSTON, *Professor of Law.*

ATWELL CAMPBELL MCINTOSH, A. M., *Professor of Law.*

The law school which developed into the Law School of the University was founded in 1843 at Chapel Hill as a private school by William H. Battle, then a judge of the Superior Court, later a Justice of the Supreme Court of the State. In 1845 Judge Battle was made Professor of Law in the University and it was provided that the degree of Bachelor of Laws should be conferred on those completing the prescribed two year course. From the records of the University, however, it seems that few degrees were actually conferred. For a long time the school maintained a certain independence of the University. The Professor of Law received no salary though he enjoyed the fees from his classes, and the students were not entirely subject to the discipline of the University.

In 1899 the school was completely incorporated into the University with the late Judge James C. MacRae, previously a Justice of the Supreme Court of North Carolina, as the first Dean of the Law School.

REQUIREMENTS FOR ADMISSION

For admission to the regular work of the school, students, unless they are "special students" as explained below, must have completed fourteen units of work. This amount of work is about equivalent to four years training in a high school. It is the same as the requirement for entrance to the Freshman class in the academic department of the University, and will be found explained on page 32-38 of the General Catalogue.

Students over twenty years of age who are not able to qualify as regular students may be admitted as "special students"

* Absent on leave 1913-1914.

upon presenting satisfactory evidence that they have received such training as will enable them to make profitable use of the opportunities offered in the school.

Seniors in the College will be admitted to take as electives courses selected, with the approval of the Dean, from the work of the law school.

The days for the registration of law students are the same as for the registration of students for the College. See the General Catalogue, page 134, or the University calendar.

Students who enter the School of Law for the Spring Term without having matriculated for the Fall Term, should present themselves for matriculation at the end of the Mid-Year examinations, as shown in the University Calendar in this Catalogue. Students, however, are advised to enter at the Fall Term, if it is possible.

DEGREE OF LL. B.

The degree of Bachelor of Laws (LL. B.) will be conferred upon students who have satisfactorily completed the entire courses prescribed for the Junior and Senior Classes of the Law School, and who satisfy the following conditions:

(a) Candidates must have completed academic courses equivalent to the work of the Freshman and Sophomore Classes in the University.

(b) Candidates must present satisfactory theses on legal subjects approved by the Dean.

(c) Candidates must have spent at least one year in residence at the University as students in the School of Law.

In the discretion of the Law Faculty, credit may be given to candidates for courses completed in other Schools of Law of recognized standing.

Plans have been considered for enlarging and lengthening the curriculum, and the Law Faculty has been authorized to formulate a three years' course of study for candidates for the degree of Bachelor of Laws. It is not considered wise to make this change at present, and it will be duly announced in the Catalogue.

DEGREES OF A. B. AND LL. B.

The University offers also the combined degrees of A. B. and LL. B. for the successful completion of the following requirements:

1. The courses in the College outlined below.
2. All academic work to be completed by the end of the last regular examination period of the Junior Year of the candidate.
3. The completion of all the courses in the School of Law prescribed for the LL. B. degree.
4. The presentation of a satisfactory thesis on a legal subject approved by the Dean of the School of Law.

Prescribed academic work:

FIRST YEAR		SECOND YEAR	THIRD YEAR
	Eng. 1 (3)	Eng. 2 (3)	Econ. 1 (3)
	Pub. Spkg. 1 (1)	Lat. 2 (3)	Philos. 1 (3)
	Math. 1 (4)	Hist. 3 (3)	Eng. (3)
	Lat. 1 (4)	Select { Greek 2 (3)	Hist. (3)
Select one {	Greek 1 (4)	one { French 2 (3)	Elective (3)
	French 1 (3)	{ Ger. 2 (3)	
	Ger. 1 (3)	Select { Math. 2 (3)	
	Hist. 1 (3)	one { Phys. 1 (3)	
		{ Chem. 1 (3)	

CERTIFICATES

Any student who has been in regular attendance in the School of Law and who has satisfactorily completed one or more courses is entitled to a certificate of attendance and standing.

NUMBER OF HOURS OF WORK REQUIRED OR PERMITTED

No student will be permitted to take more than eighteen hours of work weekly except with the special permission of the Faculty.

No student, unless he is also taking other courses in the University, will be permitted to take less than ten hours of work weekly, nor will a student taking less than ten hours weekly be considered as studying law within the rule of the Supreme Court requiring two years' study of law as a necessary preliminary of applicants for license to practice in North Carolina.

COURSES OF INSTRUCTION

The courses offered and the general order in which they are taken up are indicated in the following programme of studies which is arranged to cover two years, known as the Junior Year and the Senior Year. The method of instruction varies in the different courses. In some text-books and lectures with collateral reading of cases form the basis of work. In others the subject is developed directly from the study of selections of decided cases, and quizzes thereon.

Junior Year

FALL TERM

ELEMENTARY LAW: a general outline of the field of legal studies; Clark's *Elementary Law*. *Two hours a week*. Professor WINSTON.

CONTRACTS: the general principles of contract; Benjamin and Messing's *Cases on Contracts*; McIntosh's *Cases on Contract*. *Four hours a week*. Professor MCINTOSH.

PERSONS: Domestic relations, including husband and wife with marriage and divorce, parent and child, guardian and ward, infancy, insanity, drunkenness, and aliens; Woodruff's *Cases on Domestic Relations and the Law of Persons*, and selected cases. *Two hours a week*. Professor MCGEHEE.

BAILMENTS: bailments, carriers, telegraphs, and telephones; Goddard's *Cases on Bailments and Carriers*. *Two hours a week*. Professor MCINTOSH.

AGENCY: Mechem's *Cases on Agency*. *Two hours a week*. Professor MCGEHEE.

PROPERTY: a rapid outline of Personal Property, after which the study of Real Property is begun; lectures; Tiffany's *Modern Law of Real Property*. *Three hours a week*. Professor WINSTON.

SPRING TERM

CRIMINAL LAW: May's *Criminal Law*, with statutes and selected cases. *Two hours a week*. Professor WINSTON.

TORTS: Burdick's *Torts*, Mordecai and McIntosh's *Cases on Remedies*. *Three hours a week*. Professor MCINTOSH.

SALES: Erwin's *Cases on Sales*. Two hours a week. Professor McGEHEE.

NEGOTIABLE INSTRUMENTS: Huffcut's *Cases on Negotiable Instruments*, and *The Negotiable Instrument Law*. Two hours a week. Professor McINTOSH.

QUASI-CONTRACTS: lectures and selected cases. One hour a week. Professor McGEHEE.

PROPERTY: the law of Real Property as presented in Tiffany's *Modern Law of Real Property* is completed. Three hours a week. Professor WINSTON.

PLEADING AND PRACTICE: a study of remedies and pleading, which continues throughout the remainder of the student's course, is begun. This term is devoted to common law remedies and common law pleading. Text-book to be announced. Two hours a week. Professor McGEHEE.

Senior Year

FALL TERM

CONSTITUTIONAL LAW: McClain's *Cases on Constitutional Law* and selected cases; lectures. Four hours a week. Professor McGEHEE.

EQUITY: Bispham's *Principles of Equity*. Three hours a week. Professor WINSTON.

EVIDENCE: Hughes on *Evidence*, selected cases. Three hours a week. Professor McINTOSH.

INSURANCE: Richard's *Cases on Insurance*. Two hours a week. Professor WINSTON.

FEDERAL COURTS: The United States Courts Cases; the study of the law and procedure in selected topics; Hughes on *Federal Jurisdiction*. One hour a week. Professor McINTOSH.

PLEADING AND PRACTICE: pleading under the American code system. *North Carolina Code of Civil Procedure*; lectures. One meeting of the class each week is devoted to the preparation of actual pleadings and other practice forms. Three hours a week. Professor McGEHEE.

SPRING TERM

PRIVATE CORPORATIONS: Clarke on *Corporations*; with cases. *Three hours a week.* Professor McGEHEE.

*PUBLIC CORPORATIONS: Macy's *Cases on Municipal Corporations*. *Two hours a week.* Professor McINTOSH.

*BANKRUPTCY AND INSOLVENCY: Assignment for Benefit of Creditors, Creditor's Remedies, and the Federal Bankruptcy Act; lectures, selected cases. Students' Remington on *Bankruptcy*. *Two hours a week.* Professor McINTOSH.

PARTNERSHIP: Mechem's *Cases on Partnership*. *Two hours a week.* Professor WINSTON.

*SURETYSHIP: Bunker's *Cases on Suretyship*. *One hour a week.* Professor WINSTON.

Alternates with Conflict of Laws. To be given in 1914.

WILLS AND ADMINISTRATION: Costigan's *Cases on Wills and Administration*. *Two hours a week.* Professor WINSTON.

*CONFLICT OF LAWS: lectures and cases. *One hour a week.* Professor McINTOSH.

Alternates with Suretyship. To be omitted in 1914.

*ADMIRALTY: Hughes on *Admiralty*. *One hour a week.* Professor McINTOSH.

PRACTICE AND PROCEDURE: a continuation of the work of the first term with especial reference to equity pleading and extraordinary remedies. *Three hours a week.* Professor McGEHEE.

* From the subjects marked with an asterisk the student may omit a course or courses amounting to two hours of work weekly, devoting the time gained to the preparation of his thesis.

SCHEDULE OF LAW RECITATIONS
Senior Studies in CAPS; Junior in small type

	8:30	9:45	10:40	11:35	12:30
Fall . MONDAY	Bailments	CONST. L.	FED. CTS.	Agency	EVIDENCE
Spring	Bills & Notes	PRIV. CORP	PLEAD.	Sales	BANKRUPTCY
Fall TUESDAY	PLEAD.	EQUITY	Contracts	Property	CONST. Law
Spring	PLEAD.	PART'SHIP	Torts	Property	MUN. CORP.
Fall WEDNESDAY	Elem. Law	CONST. L.	Persons	INSURANCE	Contracts
Spring	Crim. Law	PRIV. CORP.	Quasi-Contr.	WILLS	BANKRUPTCY
Fall THURSDAY	PLEAD.	EQUITY	Contracts	Property	EVIDENCE
Spring	PLEAD.	SURETYS'P	Torts	Property	ADMIRALTY
Fall FRIDAY	Elem. Law	CONST. L.	Persons	INSURANCE	Agency
Spring	Crim. Law	PRIV. CORP.	Plead	WILLS	Sales
Fall SATURDAY	Bailments	EQUITY	Contracts	Property	EVIDENCE
Spring	Bills & Notes	PART'SHIP	Torts	Property	Mun. CORP.

MOOT COURT

A Moot Court for practice in the preparation of pleadings, the argument of law points, and the actual conduct of trials is a feature of the school. It is conducted by the students with the assistance and co-operation of the Faculty. The court meets weekly, a member of the Faculty presiding.

ADDITIONAL OPPORTUNITIES OF UNIVERSITY LIFE

Students in the Law School will be admitted without additional expense to the courses given in the Departments of economics and of History in the College of Liberal Arts and to the courses in Public Speaking and English, subject to the rules stated as to the number of hours which a student may take. A

student taking such a course must satisfy the entrance requirements for the course selected.

Students of the School may become members of the Dialectic and Philanthropic Literary Societies, where they may take part in or witness debates of a high order and train themselves in parliamentary law. As students of the University they enjoy all the privileges of the University library, the University gymnasium, and the organizations of the University generally, literary, social, and athletic.

THE LAW LIBRARY

The law library is housed in the Law Building and contains about 4,000 volumes. The annual revenue of a fund raised by the former students and friends of the late Professor John Manning, LL. D., who presided over the School for many years, is devoted to the purchase of books for the library. Free access to the Library is allowed to the students of the School, though they are not permitted to take the books from the building.

PRIZES

THE HENRY R. BRYAN PRIZE: Mr. Shepard Bryan of the Atlanta Bar offers annually, in honor of his father, the Honorable Henry R. Bryan of Newbern, N. C., a set of Cooley's Insurance Briefs to that member of the Senior Law Class who shall submit the best thesis upon an approved legal subject.

CALLAGAN & COMPANY, LAW PUBLISHERS, CHICAGO, PRIZE: A set of Andrew's American Law is offered by the publishers to that member of the Senior Class who obtains the best general average in his work for the year.

FEES AND EXPENSES

Tuition for Fall and Spring terms, each..\$35.00
Registration fees..... 15.00

There are no scholarships in the School. Good board is furnished at Swain Hall for \$12.50 a month. In the village board without rooms may be secured for from \$10 to \$16.50 a month.

The rent of rooms in the dormitories ranges from seventy-five cents to \$6.00 a month, for each occupant; and for each

room a charge of one dollar a month is made for electric light and one dollar a month for heat.

ADMISSION TO THE BAR OF NORTH CAROLINA

Admission to the bar of North Carolina is under the direct control of the Supreme Court of the State. The rules of the Court as to the examination and licensing of applicants are given on page 157. Where circumstances and means permit, the reading should be done at a regular school of law. But the requirements of the rule may be satisfied by private reading. Students who have read law for a year privately or in a law office may, by attending the school for one year, beginning either in September or January, and by attending a term of the summer school, have an opportunity to study or review the course required by the Supreme Court of applicants for license.

To do this it will be necessary for such students to select, with the approval of the Faculty, subjects from the regular courses of both the Junior and Senior years. Such a course is not advised or approved except in cases where limited means render it a regrettable necessity. Two years spent in systematic study under competent instructors is a minimum period for mastering even the elements of so wide, complicated, and technical a subject as the law. The student should remember that he is preparing for his life-work, and only detriment to that life-work can in general result from a feverish anxiety to cut short the period of preparation and to abridge the studies which experience has marked out for the acquisition of the necessary qualifications.

THE SUMMER LAW SCHOOL

A session of the School of Law extending over a period of ten weeks is maintained during each summer, during which is provided a review of the course prescribed by the Supreme Court of North Carolina for applicants for license, and an opportunity for instruction for men who cannot become resident students during the scholastic year.

SESSION

The term for the summer of 1914 begins June 18 and ends August 28, three days prior to the examination before the Supreme Court for admission to the Bar of North Carolina.

LECTURES AND RECITATIONS

At this session two daily lectures and recitations of one hour and a half each will be held by two professors of the Law Faculty. In addition there will be frequent quizzes. The two courses offered are intended to cover the requirements for reading prescribed, given below, in the rules of the Supreme Court of North Carolina. The instruction is conducted by means of text-books, lectures, leading cases, quizzes, and moot court.

An outline of the work and of the time assigned to the various subjects is approximately as follows:

Domestic Relations (6 lectures); Contracts (18 lectures); Torts (12 lectures); Corporations (6 lectures); Evidence (6 lectures); Pleading and the Code (12 lectures); Criminal Law (8 lectures); Personal Property (6 lectures); Real Property (20 lectures); Executors and Administrators (6 lectures); Equity (9 lectures); Constitutional Law (9 lectures); Legal Ethics (2 lectures).

The text-books used will be, as far as possible, those used at the regular session of the school, but any standard text-book on any of these subjects will be accepted.

EXAMINATIONS

No entrance examination is required; but each student must satisfy the faculty that he has sufficient general education to enable him to take the course with profit to himself. Examinations are required as each subject is completed, and at the end of the term certificates to that effect are issued to such students as have passed with credit all examinations in both courses. These certificates will not entitle the recipients to any credit in the work of the regular school.

FEES AND EXPENSES

Tuition for term.....	\$30.00
Registration and Incidental Fees.....	5.00

The above mentioned fees cover privileges of the University library, gymnasium, and baths. Board in the village, with room, will cost from \$10 to \$20 a month; without room, from \$10 to \$15.

For further information address the President of the University or the Dean of the School of Law, Chapel Hill, N. C.

RULES OF THE SUPREME COURT OF NORTH CAROLINA
AS TO ADMISSION TO THE BAR.

1. Applicants for license to practice law will be examined on the first Monday in February and the last Monday in August of each year, and at no other time. All examinations will be in writing.

2. Each applicant must have attained the age of twenty-one years or will arrive at that age before the time for the next examination, and must have studied: Ewell's Essentials, 3 vols.; Clark on Corporations; Schouler on Executors; Bispham's Equity; Clark's Code of Civil Procedure; Volume 1, Revisal (1905) of North Carolina; Constitution of North Carolina; Constitution of the United States; Creasy's English Constitution; Sharswood's Legal Ethics; Sheppard's Constitutional Text-book; Cooley's Principles of Constitutional Law. *Or their equivalents.*

Each applicant must have read law for two years at least, and file a certificate of good moral character, signed by two members of the bar who are practicing attorneys of this Court, and also a certificate of a Dean of a Law School, or of a member of the bar of this Court that the applicant has read law under his instruction or to his knowledge or satisfaction, for two years, and upon examination by said instructor has been found competent and proficient in said course. Such certificate, while indispensable, will, of course, not be conclusive evidence of proficiency. An applicant from another state can file a certificate of good moral character signed by any State officer of the state from which he comes. * * * *

3. Each applicant shall deposit with the clerk the sum of \$23.50 for the license and the clerk's fee before he shall be examined. * * *

THE SCHOOL OF MEDICINE

FACULTY

*FRANCIS PRESTON VENABLE, Ph.D., D.Sc., LL.D., PRESIDENT.

ISAAC HALL MANNING, M. D., DEAN.

CHARLES STAPLES MANGUM, A. B., M. D., *Professor of Anatomy.*

ISAAC HALL MANNING, M. D., *Professor of Physiology.*

WILLIAM DEBERNIERE MACNIDER, M. D., *Professor of Pharmacology.*

JAMES BELL BULLITT, A. M., M. D., *Professor of Histology and Pathology.*

ROBERT BAKER LAWSON, M. D., *Associate Professor of Anatomy.*

AULEY McRAE CROUCH, *Assistant in Anatomy.*

HENRY FRANK STARR, *Assistant in Histology.*

ADOLPHUS BART GREENWOOD, A. B., *Assistant in Pharmacology.*

HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*

EDWARD VERNON HOWELL, A. B., Ph. G., *Professor of Pharmacy.*

CHARLES HOLMES HERTY, Ph. D., *Smith Professor of General and Industrial Chemistry.*

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

ALVIN SAWYER WHEELER, Ph. D., *Professor of Organic Chemistry.*

JAMES MUNSIE BELL, Ph. D., *Professor of Physical Chemistry.*

WILLIAM LEWIS JEFFRIES, A. M., *Instructor in Chemistry.*

JOHN GROVER BEARD, Ph. G., *Instructor in Pharmacy.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

WESLEY CRITZ GEORGE, A. M., *Instructor in Zoology.*

HENRY ROLAND TOTTEN, A. B., *Assistant in Botany.*

* Absent on leave 1913-1914.

FRANK DAVIES CONROY, *Assistant in Chemistry.*

VICTOR ALDINE COULTER, B. S., *Assistant in Chemistry.*

WILLIAM AUGUSTUS RUDISILL, B. S., *Assistant in Chemistry.*

JACKSON TOWNSEND, A. B., *Assistant in Chemistry.*

WILLIAM RENNY HARDING, *Assistant in Physics.*

HISTORICAL SKETCH

The School of Medicine was established in 1879 and Dr. Thomas W. Harris was chosen to direct its work. A course of two years was offered in theoretical and practical medicine, but owing to the limited facilities this plan was not found practicable and was abandoned in 1886. In 1890, however, the School was re-opened and, under the direction of Dr. R. H. Whitehead, a course of one year, embracing only the elementary subjects—Anatomy, Chemistry, Physics, Physiology, etc.—was offered. As the requirements leading to the degree of Doctor of Medicine were increased by the leading medical colleges, the course was extended to embrace the first two years of the four year curriculum. In 1902 a Clinical Department was established at Raleigh, but since the funds for a proper equipment could not be provided, this was abandoned in 1909. In 1898 the School was admitted to membership in the Association of American Medical Colleges, and in 1901 was incorporated as an integral part of the University, on the same footing as the Graduate and the other professional schools.

COURSES OFFERED

The following courses are offered:

1. A Preparatory or Pre-medical Course: a course of one year of college work in which special attention is given to Chemistry, Physics, and Zoology. This is the minimum requirement for admission to the Medical School.
2. A Combined Course Leading to the Degree of Bachelor of Science: This consists of a prescribed college course of two years and the medical course of two years. On completing this four year course the School of Applied Science offers the degree of Bachelor of Science. The student is therefore able to obtain the

scientific degree and the degree of Doctor of Medicine in six years.

3. The Medical Course: The American Medical Association, the Association of American Medical Colleges, and other medical organizations recommend for the degree of Doctor of Medicine a graded course of four years in a medical school. They also suggest an arrangement of subjects in which the so-called laboratory subjects are to be given in the first two and the clinical subjects in the last two years. The medical course covers the subjects of the first two years. On completing the course a certificate is given which is accepted in full by most of the medical schools.

THE CURRICULUM

Preparatory or Premedical Course

Select one	Zoology 1, 3 hrs.	Chemistry 1, 3 hrs.
	Physics B, 6 hrs.	Chemistry 3A, 1½ hrs.
	German 1, 3 hrs.	Chemistry 4A, 1 hr.
	or	History of Med. 1 hr.
	French 1, 3 hrs.	

The Combined Course: College Studies

FIRST YEAR		SECOND YEAR	
Select one	English 1, 3 hrs.	English 2, 3 hrs.	Select one
	Mathematics 1, 4 hrs.	Physics 1, 3 hrs.	
	Chemistry 1, 3 hrs.	Zoology 1, 3 hrs.	
	Botany 1, 3 hrs.	Chemistry 3A, 1½ hrs.	
	German 1, 3 hrs.	Chemistry 4A, 1 hr.	
	French 1, 3 hrs.	German 1 or 2, 3 hrs.	
	Latin 1, 4 hrs.	French 1 or 2, 3 hrs.	Select one
		Latin 1, 4 hrs.	
		Drawing 1, 2 hrs.	Select one
		History 1, 3 hrs.	
		Physics 4, 2 hrs.	

In the College of Liberal Arts two hours of laboratory work are counted as one hour. In the premedical course and in the combined course this system is followed. In the medical curriculum two hours of laboratory work are counted as two hours.

The Medical Course

FIRST YEAR

Biological Chemistry (Chem. 10): *Six hours a week until April 1.*

Toxicology (Chem. 9): *Six hours a week from April 1 to the end of the term.*

COMPARATIVE ANATOMY (Zoology 2A).—*Six hours a week, fall term.*

HUMAN ANATOMY.—*Ten hours a week, fall term; fifteen hours a week, spring term.*

HISTOLOGY.—*Nine hours a week, fall term.*

EMBRYOLOGY.—*Six hours a week, spring term.*

PHARMACY.—*Six hours a week, spring term.*

SECOND YEAR

HUMAN ANATOMY.—*Nine hours a week, fall term.*

NEUROLOGY.—*Six hours a week, fall term.*

BACTERIOLOGY.—*Nine hours a week, fall term.*

PHYSIOLOGY.—*Five hours a week, fall term; ten hours a week, spring term.*

PHYSIOLOGICAL CHEMISTRY.—*Six hours a week, fall term.*

PATHOLOGY.—*Twelve hours a week, spring term.*

PHARMACOLOGY.—*Ten hours a week, spring term.*

MINOR SURGERY and PHYSICAL DIAGNOSIS.—*Four hours a week, spring term.*

SUMMARY OF FIRST AND SECOND YEARS

<i>Subjects</i>	<i>Hours</i>
Chemistry	288
Anatomy	868
Physiology	255
Bacteriology	144
Pathology	200
Pharmacology	167
Pharmacy	90
Minor Surgery and Physical Diagnosis.....	60

Total.....2072 hours.

ENTRANCE REQUIREMENTS

I. Requirements for admission to the Pre-medical and Combined Courses. The requirements for admission to the pre-medical and combined courses are fourteen units (corres-

sponding to a course of four years in the High School), of which eight units are prescribed and six are elective. The prescribed units are as follows: English 3 units, Mathematics 2 units, American history and civics 1 unit, foreign language (Latin, Greek, German, or French) 2 units. The elective units may be selected from the following: English language and literature 1 to 2 units; foreign language 1 to 4 units; natural science, physics, chemistry (one year each), biology, zoology, botany, physiology (one-half year each) $\frac{1}{2}$ to 2 units; physiography, $\frac{1}{2}$ unit; history 1 to 3 units; drawing 1 unit.

Candidates should present at least two units of German or French since they are required for admission to German 1 or French 1 in the pre-medical course. Equivalent courses are offered in the Summer School of the University. In the event of a failure to present such units for admission the student will be required to take German B or French A in the pre-medical course and German 1 or French 1 in the first year of the medical course.

At the discretion of the Committee on Entrance Certificates candidates may be admitted with conditions, provided the total number of units offered does not fall below a minimum of 12 units, and provided the conditions are of such nature that, in the judgment of the Committee, they may be removed on or before September of the following year. Provision is made for the removal of conditions in a limited number of subjects during the Summer School.

II. Requirements for Admission to the Medical Course. The requirements for admission to the medical course are one year of college work, embracing the following subjects: Chemistry, Biology, Physics, and German or French, the equivalent of the premedical course as outlined on page 160.

Candidates may be admitted with two conditions, one in language and one in science when, in the judgment of the Dean, the conditions may be carried without detriment to the medical course and may be removed on or before September of the following year.

III. Admission to Advanced Standing. Candidates for admission to the second year of the medical course must present certificates from an accredited medical school stating that they have had the required fourteen units, the year of college work

as indicated in Section II, and have completed the subjects of the first year of the medical course as outlined on page 160. Candidates may be admitted with not more than two conditions when, in the judgment of the Dean, the conditions may be carried without detriment to the medical course and may be removed on or before February of the same year.

EXAMINATIONS

Regular examinations are held during the two regular examination periods of the College of Liberal Arts. Special examinations will be given for the purpose of making up deficiencies during Registration Week. A fee of \$5.00 will be charged each applicant for an examination at any other time. An examination will not be allowed if the student is charged with ten per cent of unexcused absences or with absences amounting to twenty per cent. of the total number of hours assigned to the subject.

CERTIFICATES

A certificate will be granted to a student who completes satisfactorily the required preliminary work and the medical course. In the event of a failure to complete the work a statement indicating the subjects completed will be given. No credits will be allowed for attendance only.

EQUIPMENT

The new medical building, Caldwell Hall, completed in 1912, is located on the south side of Cameron Avenue opposite Davie Hall, facing north. This location secures the north light in all of the laboratories used for microscopic work.

To the north is the main building, 117 x 64, and adjoining this, to the south, is a wing, 63 x 36, each containing a basement and two floors. The first floor of the main building is bisected from north to south by an entrance hall 14 feet wide, and from east to west by a corridor 8 feet wide, dividing the floor space into four equal parts. Each part is subdivided into one large class laboratory, 34 x 27, and two private laboratories, 14 x 12½. The class laboratories lie next to the entrance hall. Those on the north side will be used for microscopic work in Histology and Embryology. They are lighted from five large windows on the north side. On the south side

are the laboratories for Physiological Chemistry and Experimental Physiology.

The private laboratories, located on the farther side of the class laboratories, are occupied by the instructors. The office of the Dean is in one of the private laboratories on this floor and may be entered from the west end of the corridor.

The second floor is a duplicate of the first floor with the exception that the space above the entrance hall is enclosed and is used for the Departmental Library. On the north side are the Bacteriological and Pathological laboratories, and on the south side the Pharmacological laboratory and a lecture room. The laboratories here have the same arrangement as those on the first floor. Nearly opposite the Pathological laboratory is the Pathological Museum.

At the ends of the corridor on the first and second floors are small fire proof rooms which will be used for incubators, thermostats, and other purposes requiring the continuous use of oil or gas lamps.

In the basement of the main building provision is made for the care of animals. The floors of the several apartments are covered with cement and are inclined to a common drain pipe. The rooms are well ventilated, lighted, and heated, and provided with all necessary facilities for proper sanitation.

On the first floor of the wing adjoining the main building is the main lecture hall, and in the rear of this is the amphitheatre for anatomical demonstrations. In the rear of the amphitheatre is the Anatomical Museum.

On the second floor of the wing are the anatomical laboratories. In the centre, and occupying a large part of the floor space, is the main dissecting hall, which has a cement floor and is lighted by six large windows and two skylights. On either side of a short corridor at the front are two private laboratories for special dissections, and at the end of the corridor the two laboratories for the instructors. The latter are entered from the upper hall of the main building. In the rear of the main dissecting hall are the lavatory and locker rooms.

The basement of the wing is divided by a solid brick wall from east to west. On the north of this wall are the store rooms, a photographic room, a room for the refrigerating and gas plants; on the south side are the storage tanks for cada-

vers, the incinerator, and other arrangements for the care of anatomical material. In the rear end of the basement is an entrance hall containing the elevator and the stairs leading to the amphitheatre and the dissecting hall. The building is heated from the central heating plant and abundantly supplied with water and electric light. The dissecting hall is supplied with hot and cold water.

The laboratories are well equipped with apparatus for the use of the students and the research work of the teachers. Animals are available in adequate numbers for all proper experimental work.

The Departmental Library contains approximately three thousand volumes. The more important periodicals pertaining especially to the subjects offered in the course are received regularly and kept on file.

The medical students have free access to the general Library, the Chemical, Physical, and Biological laboratories, which are described in Part Five of the general catalogue.

THE GENERAL PLAN OF INSTRUCTION

In the arrangement and conduct of the courses an effort is made to follow modern ideals in medical education. A year of college training in Chemistry, Physics, and Zoology is insisted upon as the minimum preparation for the study of medicine. In order, however, to encourage a more thorough preparation, the degree of Bachelor of Science is offered to those students who complete a prescribed college course of two years and the two years of the medical course. In offering this degree the value of a properly directed college course of four years is not minimized, but on the contrary is earnestly recommended.

In the arrangement of the course of studies the attempt is made to have the subjects follow in natural sequence. Elementary courses in General Chemistry, Physics, and Zoology having been completed in the pre-medical year, more advanced courses in these subjects are pursued. In the first year Organic Chemistry, and Comparative Anatomy, with special reference to the requirements of the medical student, Gross Human Anatomy, Histology, Embryology, and an elementary course in Pharmacy are studied. In the second year Human Anatomy, Physiological Chemistry, and Bacteriology are completed in the first

half; Materia Medica and Pharmacology, Pathology, and Normal Physical Diagnosis in the second half. Physiology is begun and completed in the second year. At the expiration of the two years the student will have completed the fundamental branches of medicine, and will be prepared to enter upon the study of the more practical subjects.

In the plan of instruction the laboratory method, supplemented with systematic lectures and demonstrations, is pursued. The lectures and the laboratory courses are given contemporaneously as far as possible, for it is believed that the student, in this way, not only acquires technical skill, but a more thorough knowledge of the subject.

When advisable the classes are divided into small sections so that the work of the students is under the direct supervision and close observation of the instructor. Frequent oral and written quizzes and a final examination are required in each subject, and in the laboratory courses each student is required to record the observations in a note book, which must be submitted from time to time to the instructor and is held for a part of the final grade.

Regular attendance upon all classes is required of each student. A student who is absent twenty per cent. of the total number of hours assigned each subject, or is charged with ten per cent. of unexcused absences, is denied the privilege of an examination in the subject in which the absences occur.

EXPENSES

The following are the charges a term payable at the beginning of each term in September and January respectively:

Tuition	\$35.00
Fee for matriculation (registration, etc.)	15.00
<hr/>	
Total.....	\$50.00

In addition the following fees will be charged for laboratory courses a term:

Chemistry 3A, \$7.50; Chemistry 4A, \$4.00; Chemistry 10, \$5.00; Physiological Chemistry, \$5.00; Zoology 1, \$3.00; Zoology 2, \$5.00; Botany 1, \$3.00; Experimental Physiology, \$5.00; Experimental Pharmacology, \$5.00; Pharmacy, \$5.00;

Bacteriology, \$2.50; Pathology, \$2.50; for the use of a microscope, \$1.00.

The laboratory fees are divided approximately equally among the four terms. The total charge is between \$60.00 and \$63.00 a term.

Good board is furnished at Swain Hall for \$12.50 a month. In the village board without rooms may be secured for from \$10.00 to \$16.50 a month. The rent of rooms in the dormitories ranges from seventy-five cents to \$6.00 a month for each occupant. For each room a charge of \$2.00 a month is made for electric light and heat.

PRIZES AND SCHOLARSHIPS

THE WOOD SCHOLARSHIP. (Established in 1895.) Mrs. Mary Sprunt Wood, of Wilmington, has founded, in memory of her husband, the late Dr. Thomas Fanning Wood, a scholarship, covering the tuition and fees.

COURSES OF INSTRUCTION

History of Medicine

1. A condensed outline of the evolution and development of Medicine and Surgery. Required of students in the pre-medical course. *Both terms, one hour.* Professor MACNIDER.

Chemistry

1. General Descriptive Chemistry: Pre-medical: the elements are studied in a systematic manner; the laws governing their combination and the compounds resulting are considered with appropriate reference to their occurrence and relationships to medicine. The latter part of the course is taken up with organic chemistry. Texts: McPherson and Henderson's *General Chemistry*; Remsen's *Organic Chemistry*. *Both terms, three hours.* Professor HERTY and Messrs. JEFFRIES, RUDISILL, and TOWNSEND.

Laboratory fee, \$1.25 a term.

- 3A. Qualitative Analysis: Premedical: laboratory work with lectures; practice is given in the analysis of known

and unknown mixtures. Required. *Fall term, three hours.* Professor WHEELER and Mr. COULTER.

Laboratory fee, \$7.50.

- 4A. Quantitative Analysis: Pre-medical: a brief course in gravimetric methods followed by a more extended course in volumetric methods. Required. *Spring term, two hours.* Professor BELL and Mr. COULTER.

Laboratory fee, \$4.00.

5. Organic Chemistry: lectures and laboratory work. Prerequisite, Chemistry 1 and 3. Elective. *Both terms, three hours.* Professor WHEELER.

Laboratory fee, \$4.00 a term.

- 5A. Organic Chemistry: laboratory work chiefly. This course is designed to give further practice in dealing with organic compounds. Elective. Prerequisite, Chemistry 5 or 10. *Both terms, two hours.* Professor WHEELER.

Laboratory fee, \$6.00 a term.

9. Toxicology: laboratory work; the chemical behavior of poisons and their separation from foods and organs are studied in the laboratory. Text: Autenrieth and Warren's *Detection of Poisons*. Required. *Spring term after April 1, three hours.* Professor WHEELER and Mr. CONROY.

10. Biological Chemistry: lectures and laboratory work. Part I. A general survey of Organic Chemistry and the synthetic preparation of compounds of special interest to medical men.

Part II. A more detailed study of the fats, carbohydrates, and proteins, including laboratory work. Text: Haskin's *Organic Chemistry*. *Fall term and Spring term to April, three hours.* Professor WHEELER and Mr. CONROY.

Laboratory fee, \$5.00 a term, including Chemistry 9.

Physics

- B. Elementary Physics for medical students: the fundamental facts of Physics are studied with some special attention to heat, light, and electricity. Text-

book, lectures, and laboratory work. *Both terms, six hours.* Professor PATTERSON and Messrs. CHRISLER and HARDING.

Certificates of Physics work done elsewhere than in a college of approved standing will not be accepted in lieu of this course.

Laboratory fee, \$2.00 a term.

1. General Physics: lectures, with text-book; problems; laboratory work. Prerequisite, Mathematics 1. *Both terms, four hours.* Professor PATTERSON and Mr. CHRISLER.

Laboratory fee, \$1.50 a term.

4. Electricity and Magnetism: a study of the phenomena of electricity and magnetism, and their application in modern life, including the use of the X-rays, the rays of Radium and other applications in Electrotherapeutics. Laboratory work required. Elective. *Both terms, two hours.* Professor PATTERSON.

Laboratory fee, \$2.00 a term.

Zoology

1. Elements of Zoology; pre-medical; an introductory course giving an outline of the classification and structure of animals, fundamentals of histology, embryology, and physiology, with some consideration of biological theories; lectures with laboratory work. Professor WILSON and Mr. GEORGE.

Laboratory fee, \$3.00 a term.

2. Comparative Anatomy of Vertebrates (first half); medical; dissection of vertebrate types: amphioxus, cyclostome, fish, bird, mammal. Professor WILSON.

Laboratory fee, \$5.00 a term.

Botany

1. General Botany: an introduction to the structure and classification of plants; lectures with laboratory work. Elective in the first year. Professor COKER and Mr. TOTTEN.

Histology

1. General Histology and Organology. This course includes (a) the study of fundamental tissues, followed by

(b) the study of the microscopic structure of the various organs, and (c) the fundamentals of histological technique. Lectures, recitations, and laboratory. Text, Piersol. *Fall term, nine hours a week.* Professor BULLITT and Mr. STARR.

2. Advanced Histology: To those who have completed course 1 or its equivalent opportunity will be offered to pursue advanced work or original investigation in this subject. Arrangements for this course may be made with Professor BULLITT.

Course 1 is required of all medical students. Course 2 is elective.

Anatomy

Professor MANGUM, Associate Professor LAWSON and Mr. CROUCH.

The courses in anatomy are made as practical as possible. The student makes a complete dissection of all structures under the constant supervision and direction of an instructor, who insists upon the use of text-books, guides and atlases, and holds practical examinations upon all parts dissected. Laboratory talks, demonstrations and conferences take the place of lectures. In those subjects most difficult for the beginner the structures are demonstrated to each individual student.

The courses include gross anatomy, the topography of the body, the application and relation of anatomy to medicine and surgery, the microscopic anatomy of the central nervous system and human embryology. For course in Histology see page 169. Ample facilities are offered to those who may desire to pursue advanced work or original investigation in the field of anatomy.

FIRST YEAR

1. Osteology, arthrology, descriptive anatomy of the thoracic and abdominal viscera, topographical anatomy of the thorax and abdomen, and the dissection of one-half of the structures of the body. *Both terms.*
2. Embryology: The processes of development as manifested in the embryos of the frog, the chick and the pig. The work in the laboratory is supplemented by

a course of lectures upon the development of the human body. *Spring term.*

SECOND YEAR

3. The completion of the dissection of the body. *Fall term.*
4. Topographical and Applied Anatomy: Given in connection with the work in the dissecting room. Embraces the external markings of the organs (viscera, vessels, nerves, etc.), their location and inter-relationships, and the application of anatomy to medicine and surgery. Dissections, models, preparations, and numerous drawings by the students are used as aids in this course. At the end of the second year a final examination is held upon the entire subject of gross anatomy. *Fall term.*
5. Neurology: A special laboratory study of the gross and microscopic anatomy of the cord and encephalon. Each student is provided with numerous prepared dissections of the human brain and a series of sections through the cord and the brain stem which he studies with the aid of a guide. A human brain is then given to each group of four men and by them dissected in order to correlate and systematize the work already done. A practical examination tests the student's ability to locate the various tracts and nuclei. *Fall term.*

TEXTS: Cunningham, Gray and Piersol; Cunningham's *Manual*; Heisler's *Practical Anatomy*; *Brain and Spinal Cord* (Villiger); *Anatomy of the Brain* (Whitehead); *Development of the Human Body* (McMurrich); *Laboratory Text Book of Embryology* (Minot).

Physiology

Professor MANNING.

The course in Physiology is given in three parts, as follows:

1. General Physiology: a lecture course of five hours a week extending through the year; a brief account of cell physiology is followed by a detailed discussion of the facts and theories of Human Physiology; atten-

tion is called to the application of physiology in medical practice as far as possible. Text: Howell.

2. **Physiological Chemistry:** a laboratory course of six hours a week during the fall term. The purely chemical aspects of Bio-chemistry are considered in the course in organic chemistry (Chem. 10) given in the first year. In the course in Physiological Chemistry a practical application of the principles of Bio-chemistry is made in the study of Human Physiology. The chemistry of digestion, of the secretions, of blood, and of the urine is studied in detail, qualitatively and quantitatively, and such tissues are examined as will afford evidence of the course of metabolic processes. Laboratory Notes. References: Hammarsten, Hawk.
3. **Experimental Physiology:** a laboratory course of five hours a week during the spring term. In this course the student studies the heart and neuro-muscular systems on the turtle and the frog; the circulatory, respiratory, and glandular systems on the mammal. In the former the class is divided into groups of two and in the latter into groups of four. Each group is supplied with mimeographed directions for the performance of each experiment and a full equipment of apparatus, and each student is required to keep a record of the observations, including tracings. Reference: Stewart, Porter, Hill, etc.

Materia Medica and Pharmacology

Professor MACNIDER and Mr. GREENWOOD.

1. **Materia Medica:** the general consideration of the subject is given in the first year of the medical curriculum. In the second year the important drugs are studied in groups, the classification depending upon their physiological action. Emphasis is given to the most important drugs, and their physiological action is studied in detail.
2. **Prescription Writing:** as early as possible in the course the student's attention is directed to the logical application of various drugs to the relief of morbid condi-

tions. Hypothetical conditions are discussed, and each student writes one or more prescriptions and gives his reasons for the use of the various drugs he employs. The prescriptions are discussed and criticised by the students and the instructor.

3. Pharmacodynamics: this part of the general course in Pharmacology consists in a careful and accurate study of the action of practically all of the more important drugs on the lower animals. For this work, the higher animals, such as the cat and dog, are chiefly used. The class is divided into groups of two or four, and the experimental work is conducted by the student. Each student is required to hand in to the instructor, at the completion of the course, a laboratory note book containing a detailed account of each experiment, an explanation of the results obtained, and the tracings made during the experiments. Oral and written recitations are frequently held. Text: Cushny. *Pharmacology and Therapeutics*. Reference: Sollman.
4. Advanced Pharmacology: two types of courses will be offered: (a) an experimental study of the action of various drugs upon the normal animal; (b) an experimental study of the action of various drugs and other agents upon the pathological animal.

Bacteriology

Professor MACNIDER and Mr. GREENWOOD.

The student learns by practical experience the methods of cultivating, staining, and identifying the principal pathogenic bacteria. A few non-pathogenic and saprophytic forms are studied. The pathological significance of the various forms is explained by lectures, and the pathogenicity of some of the forms is determined by inoculation experiments performed by the class. At intervals during the course unknown organisms are given for identification. In addition to this, each student is required to isolate from the air, water, fecal matter, or pus two organisms and determine their species. The latter part of the course is devoted to the

bacteriological study of milk and water. Text: Jordan. Reference: Park and McFarland.

Minor Surgery and Physical Diagnosis

Associate Professor LAWSON.

The class practices the application of bandages, and learns the modern method of dressing wounds. A short course in Physical Diagnosis is given. Text: Davis on Bandaging.

Pharmacy

Mr. BEARD.

The course in Pharmacy will consist in laboratory work supplemented by lectures. The student will have an opportunity to study the crude drugs and their official prescriptions and doses, and to familiarize himself with pharmaceutical methods in the preparation of official drugs, in writing and compounding prescriptions.

Hygiene

Professor MANNING.

A short course in the elementary principles of Hygiene and Sanitation.

Pathology

Professor BULLITT and Mr. STARR.

1. General and Special Pathology: this course embraces a thorough consideration of general pathological processes from their chemical and physiological as well as their morphological aspects. The subject of Special Pathology is considered upon the same broad basis. The course includes a series of lectures and recitations combined with laboratory work and demonstrations of gross and microscopical preparations. Text, McFarland. *Spring term*, lectures and recitations, *four hours a week*. Laboratory, *nine hours a week*. Prerequisite, Histology 1.
2. Advanced Pathology: opportunity for advanced work in pathology or for original investigation will be offered to a limited number of students upon the presentation

of satisfactory evidence of ability to pursue work of this character.

Course 1 is required of all medical students. Course 2 may be elected by special arrangement with Professor BULLITT.

Advanced Courses for Practicing Physicians

Opportunity for advanced work or for original investigations is offered in all of the laboratories to practicing physicians by special arrangement with the instructors.

SCHEDULE OF RECITATIONS

HOUR TERM	FIRST YEAR							SECOND YEAR						
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
Fall	Chem. 10	Histology	Chem. 10	Histology	Histology	Histology		Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	
8:30								Pharma- cology	Pharma- cology	Pharma- cology	Pharma- cology	Pharma- cology	Pathology	
Spring	Chem. 10	Anatomy	Chem. 10	Anatomy		Anatomy		Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	Anatomy 2	Anatomy 3	
Fall	Histology	Histology	Histology	Histology	Histology	Histology								
9:45														
Spring	Pharmacy	Anatomy	Pharmacy	Anatomy		Anatomy		Physiology	Physiology	Physiology	Physiology	Physiology	Pathology	
Fall	Histology	Histology	Histology	Histology		Histology		Anatomy 2	Bacteriology	Anatomy 2	Bacteriology	Anatomy 2	Bacteriology	
10:40														
Spring	Embryology	Anatomy	Embryology	Anatomy		Anatomy		Pharma- cology	Pathology	Bacteriology	Pathology	Physiology	Pathology	
Fall	Anatomy	Anatomy	Anatomy	Anatomy		Anatomy							Bacteriology	
11:35														
Spring	Embryology		Embryology					Pharma- cology	Pathology	Pathology	Pathology	Physiology	Pathology	
Fall	Anatomy	Anatomy	Anatomy	Anatomy		Anatomy								
12:30														
Spring	Embryology	Anatomy	Embryology	Anatomy		Anatomy								
Fall	Chem. 10	Zoology 2	Chem. 10	Zoology 2	Zoology 2			Physiology	Physiology	Physiology	Physiology	Physiology		
2:30								Pharma- cology	Pathology	Pathology	Pathology	Pathology		
4:30								Physiology	Bacteriology	Physiol. Chem.	Bacteriology	Physiol. Chem.		
Spring	Chem. 10	Pharmacy	Chem. 10	Pharmacy				Pharma- cology	Minor Surg. & Ph. Diag	Hygiene	Minor Surg. & Ph. Diag	Physiology		

THE SCHOOL OF PHARMACY

FACULTY

*FRANCIS PRESTON VENABLE, Ph.D., D.Sc., LL.D., PRESIDENT.
EDWARD VERNON HOWELL, A. B., Ph. G., DEAN.

EDWARD VERNON HOWELL, A. B., Ph. G., *Professor of Pharmacy.*

JOHN GROVER BEARD, Ph. G., *Instructor in Pharmacy.*

HENRY VAN PETERS WILSON, Ph. D., *Professor of Zoology.*

WILLIAM DEBERNIERE MACNIDER, M. D., *Professor of Pharmacology.*

ISAAC HALL MANNING, M. D., *Professor of Physiology.*

CHARLES HOLMES HERTY, Ph. D., *Smith Professor of General and Industrial Chemistry.*

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*

ALVIN SAWYER WHEELER, Ph.D., *Professor of Organic Chemistry.*

JAMES MUNSEE BELL, Ph.D., *Professor of Physical Chemistry.*

WILLIAM LEWIS JEFFRIES, A. M., *Instructor in Chemistry.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

WESLEY CRITZ GEORGE, A. M., *Instructor in Zoology.*

HENRY ROLAND TOTTEN, A. B., *Assistant in Botany.*

FRANK DAVIES CONROY, *Assistant in Chemistry.*

VICTOR ALDINE COULTER, B. S., *Assistant in Chemistry.*

WILLIAM AUGUSTUS RUDISILL, B. S., *Assistant in Chemistry.*

JACKSON TOWNSEND, A. B., *Assistant in Chemistry.*

WILLIAM RENNY HARDING, *Assistant in Physics.*

FOUNDATION

The School of Pharmacy was founded in 1897 and was opened for students in September of that year. Its location at the seat of the University assures to the students the most modern scientific instruction with all the laboratory facilities

* Absent on leave 1913-1914.

of the undergraduate department, as well as the courses of instruction in the allied branches. These opportunities will meet the requirements of a large number of students who were compelled heretofore to obtain their pharmaceutical education in other states. Briefly stated, the advantages are as follows:

1. Thorough, careful, *individual* training.
2. The practical experience derived from active work in the laboratories.
3. Intimate association with the other departments of the University, to all of which the student of pharmacy has access, and the daily contact with students pursuing various branches of learning.
4. The use of the large library and reading room and the well equipped gymnasium.
5. The comparatively small cost at which a two years' course may be obtained.
6. The length of the course, which consists of two sessions of nine months each,—nearly a fourth longer than in many of the colleges of pharmacy.

The success of the students of this school in their examinations before the State boards has been very gratifying. Students of this School have been applicants before the State boards of Maryland, Pennsylvania, and North Carolina. None of the graduates of this School applying for license before the State boards has failed to pass the examination.

ADMISSION

Candidates for admission into the School of Pharmacy should present themselves on the same days and at the same hours with candidates for admission into the college. For the next academic year these days will be *Monday, Tuesday, or Wednesday, September 7, 8, or 9, 1914, and Monday or Tuesday, January 4 or 5, 1915*. The session of the School of Pharmacy is of the same length as the College year, beginning *September 10, 1914*, and ending *June 2, 1915*.

Candidates for the degree of Ph. G. must be, on entering, at least 17 years old, and must have completed a high school course of study. They may however enter the first year course without those prerequisites.

The members of the School of Pharmacy enjoy all the privileges extended to other students in the University.

EXPENSES

The charges for each term are payable at the beginning of the term. They are as follows:

Tuition	\$30.00
Registration and incidental fees.....	15.00

There are additional fees as follows:

FIRST YEAR

Chemistry 1 (each term).....	\$1.25
Physics A (each term)	1.00

SECOND YEAR

Chemistry 3 (each term)	\$5.00
Chemistry 9 (April and May).....	1.50

The students of Pharmacy are entitled to the use of the gymnasium, the library, and reading room, and, in case of sickness, to medical attention and the use of the infirmary.

Good board is furnished at Swain Hall for \$12.50 a month. In the village board without rooms may be secured for from \$10 to \$16.50 a month. The rent of rooms ranges from seventy-five cents to \$6.00 a month. For each room is made a charge of \$2.00 a month for electric light and heating.

PRIZES

THE BRADHAM PRIZE, offered by Mr. C. D. Bradham, of New Bern, N. C., will be given to the student making the highest general average during the two years of study.

Prizes will be given:

1. For the best thesis.
2. For the best collection of native medicinal herbs.
3. For the best exhibit of chemical salts made by a second year student.
4. For the best work in the recognition of materia medica specimens.
5. To the student recognizing the largest number of pharmaceutical preparations.

6. To the student making the best general average during the first year of study.

EXAMINATIONS

Final examinations are held at the end of each term on the subjects embraced in the course.

Quizzes upon the different branches are held regularly. Specimen quizzes upon Materia Medica, Chemistry, and Pharmacy are held once a week, and consist in the recognition and correct writing of the official names of the specimens presented.

Students are required to make an average of 70 per cent. on all examinations and quizzes.

COURSES LEADING TO THE DEGREE OF GRADUATE OF PHARMACY

In order to be recommended for the degree of Graduate of Pharmacy (Ph. G.) the student must have completed with credit the course of study outlined below. The course extends over two sessions of nine months each. The student must have completed the work of both sessions in the School of Pharmacy of this University, or of one session (the second) here after one in some other recognized school of Pharmacy. He must obtain satisfactory marking in attendance, making a general average of 70 per cent. in the various branches, and submit a satisfactory thesis. The thesis must be an original essay embodying the results of the student's personal research in some branch of Pharmacy, which he has prosecuted under the direction of the professor who assigned him the subject. The subject of such thesis must be announced on or before February 1 to the Dean of the Faculty. On May 2 the thesis shall be read before the Dean of the School, subject to criticism and correction. The corrected and approved thesis must be handed to the Registrar in typewritten form on or before May 15. It will be published at the discretion of the Dean of the School. The student must have had a practical experience of at least four years with some qualified pharmacist in a dispensing store. Satisfactory evidence on this point must be submitted to the Dean of the School, and a certificate deposited with the Registrar on or before May 15. Students who have not had the full four years' experience will be permitted to stand ex-

aminations for graduation; but their diplomas will be withheld until they shall have satisfied this requirement. Of the three years of experience required for license by the State Board of Pharmacy, the work done in the Pharmaceutical laboratory will count for one and only one.

FIRST YEAR

Pharmacy 1 (5)
Pharmacy 4 (4)
Pharmacy 8 (3)
Pharmaceutical Botany (3) or
Elementary Physics A (3)
Chemistry 1 (3)

SECOND YEAR

Pharmacy 2 (5)
Pharmacy 5 (8)
Materia Medica (5)
Materia Medica and Pharmacology (5)
Chemistry 3 (2)
Chemistry 9, April and May (3)

COURSES OF INSTRUCTION

Pharmacy

1. Theory and Practice of Pharmacy. This course consists of lectures upon the following subjects, with practical demonstrations and the employment of proper apparatus whenever necessary: metrology, comminution, heat evaporation, distillation, sublimation; fusion, calcination, granulation, oxidation, reduction, etc.; solution of solids, liquids, and gases; deliquescence, efflorescence, etc.; colation, filtration, decolorization, clarification, precipitation, etc.; macration, expression, infusion, decoction, etc.; percolation, and study of the following: waters, syrups, honeys, glycerites, mucilages, mixtures, spirits, elixirs, liniments, collodians, tinctures, wines, vinegars, and fluid extracts. Text: Remington, *Theory and Practice of Pharmacy*. First year. Both terms, five hours. Professor HOWELL.

2. **Theory and Practice of Pharmacy:** The official forms and preparations of drugs are taken up in detail. Beginning with the inorganic compounds, the salts are considered with regard to their commercial qualities and pharmaceutical uses and preparations. The organic compounds are studied, commencing with the salts of the organic acids and passing to the natural and organic compounds. Second year. *Both terms, five hours.* Professor HOWELL.
3. **Pharmaceutical Botany and Materia Medica:** This course takes up the study of the medicinal plants. It embraces Organography, Vegetable Histology, Morphology, and Plant Geography. Each plant is studied with reference to the part official in pharmacy, the constituents, action and uses, official preparations and assay of the drug. Instruction is also given in growing native plants and in mounting them for exhibition purposes. *Both terms, three hours.* Text-books: Bastins' *College Botany* and Ruddiman's *Materia Medica*. Mr. BEARD.
4. **Operative Pharmacy:** a practical course with laboratory work. First year. *Both terms, four hours.* Mr. BEARD.
5. **Operative Pharmacy:** a continuation of course 4. Second year. *Both terms, two hours.* Professor HOWELL.

Materia Medica and Pharmacology

1. **Materia Medica:** lectures on the geographical and botanical sources of drugs; descriptions and uses of the same, together with their preparation and doses. Opportunity is given the student to familiarize himself with most of the crude drugs and their preparations. Text: White and Wilcox. *Fall term, three hours.* Mr. BEARD.
2. **Materia Medica and Pharmacology:** This course is devoted to the study of the origin and constitution of remedial measures, their preparations and doses; and in particular, their physiological action and the indications for their rational use. Opportunity will be given

to students to familiarize themselves with the more important crude drugs and their preparations. Instruction is given by means of lectures, recitations, and demonstrations. The lectures intended to accompany the work in Toxicology are given as a part of the course in Materia Medica. Professor MACNIDER.

8. Pharmacy. In this course, which deals with several branches of pharmacy, synonyms are first taken up and all common and practical names of plants and chemicals are studied. Along with synonyms, the specimens commonly seen in drug stores are shown and methods given for the recognition of each. This is followed by a detailed list of all terms descriptive of the therapeutic action of drugs.

A short course is given in Pharmaceutical Latin. A student of this course will be taught to read and write correctly prescriptions in full Latin. In addition, instruction is given in the Latin prefixes and suffixes used to form the names of chemicals and galenicals.

The spring term is wholly taken up with a complete course in pharmaceutical arithmetic. Beginning with the metric system, the student is instructed in Alligation, Specific Gravity, Specific Volume, Percentage, Proportion, etc. Text-book: Sturmer's *Pharmaceutical Arithmetic*. Both terms, three hours. Mr. BEARD.

Physics

Elementary Physics (Physics A): the fundamental facts of Physics are studied with some special reference to heat and electricity. Text-book, lectures, and laboratory work. First year. Both terms, three hours. Mr. CHRISLER.

Certificate of Physics work done elsewhere than in a college of approved standing will not be accepted in lieu of this course.

Chemistry

1. General Descriptive Chemistry: the elements are studied in a systematic manner; the laws governing their combination, and the compounds resulting, are considered with appropriate reference to their occurrence and re-

lationships to medicine. The latter part of the course is taken up with organic chemistry. Texts: McPherson and Henderson's *General Chemistry*, and Remsen's *Organic Chemistry*, supplemented by lectures and quizzes. First year. *Both terms; lectures, three hours; laboratory, one hour.* Professor HERTY and Messrs. JEFFRIES, RUDISILL, and TOWNSEND.

Laboratory fee, \$1.25 a term.

3. Qualitative Analysis: laboratory work with lectures; the behavior of the elements and their compounds is studied in the laboratory. Practice is given in the analysis of known and unknown mixtures with special reference to the detection of poisons and determination of the purity of drugs. Second year. *Both terms, two hours.* Professor WHEELER and Mr. FLUME.

Laboratory fee, \$5.00 a term.

9. Toxicology: laboratory work: the chemical behavior of poisons and their separations are studied in the laboratory. Text, Autenrieth and Warren's *Detection of Poisons*. *April and May, three hours.* Professor WHEELER and Mr. CONROY.

Laboratory fee, \$1.50.

OPTIONAL COURSES

The following courses are not required of students in Pharmacy, but may be elected profitably.

Elementary Physiology

The study of Physiology is begun in the spring term of the first year, during which the physiology of digestion, the digestive glands, blood, respiration, metabolism, excretion, and animal heat are considered in lectures illustrated by experiments. The study is continued in the fall term of the second year by consideration of the physiology of the muscles and of the nervous system. During this term also the student learns the methods of experimental physiology by means of class work in the laboratory. Texts: *American Text Book*, Stewart, or Kirke. *Both terms, three hours.* Professor MACNIDER.

Zoology

Elements of Zoology: an introductory course giving an outline of the classification and structure of animals, fundamentals of histology, embryology, and physiology, with some consideration of biological theories; lectures with laboratory work. Text: Parker. *Both terms, three hours.* Professor WILSON and Mr. GEORGE.

Botany

General Introduction to Systematic Botany: with special attention to medical plants; laboratory and field work, with recitations. *Spring term, three hours.* Professor COKER and Mr. TOTTEN.

Chemistry

Technical Chemistry: lectures; the application of chemistry to the arts and industries. This course includes metallurgy, glass making, pottery, (*fall term*); food, clothing, building materials, explosives, photography, etc., (*spring term*). *Both terms, three hours.* Professor HERTY.

Quantitative Analysis: laboratory work. This course is intended to give the student a thorough grounding in analytical methods and manipulations. *Three hours.* Professor BELL.

Quantitative Analysis: laboratory work. The student in this course is led further into the study and practice of analytical methods. The work may take any special direction desired by him, fitting him to be an agricultural chemist, iron chemist, manufacturing chemist, physician, druggist, or teacher of chemistry. The spring term is given to research. *Five hours.* Professor HERTY.

Geology

Determinative Mineralogy: lectures with laboratory work. Dana's *Text-Book of Mineralogy*. *Both terms, two hours.* Mr. SMITH.

Bacteriology

The student learns by practical experience the methods of cultivating, staining, and identifying the principal bacteria, and their pathological significance is explained by lectures and demonstrations by inoculation of animals. In this way the chief pathogenic bacteria are studied in pure culture on the various media, after which the methods of obtaining pure culture from mixtures of bacteria are learned. The necessary manipulations are carried out by the students, who thus obtain a practical knowledge of the subject which can be gained in no other way. *Fall term, six hours.* Professor MACNIDER.

Students in Pharmacy have also the privilege of attending any of the regular academic courses.

PHARMACEUTICAL LABORATORY

OFFICERS

EDWARD VERNON HOWELL, A. B., Ph. G., DIRECTOR and *Professor of Pharmacy.*

JOHN GROVER BEARD, Ph. G., *Instructor in the Pharmaceutical Laboratory.*

JAMES EDISON LYTCH, *Assistant in the Laboratory.*

The rooms of the Pharmaceutical Laboratory are admirably adapted to this purpose. They are conveniently situated on the first floor, are well lighted, and well equipped with water, electric lights, and gas. To each student is assigned a desk, provided with lock and key, and containing all the apparatus necessary for the every day work of the pharmacist. In the store room is kept a supply of materials for practical work, as well as the apparatus for the more complex operations. Ample space is provided for the work at the prescription counter, where practical instruction in the compounding and dispensing of prescriptions is given.

A small deposit fee is required to cover the cost of breakage of apparatus. At the end of the session this fee will be returned, less the amount of breakage.

OTHER LABORATORIES

The laboratories of Physics, Chemistry, and Biology are open to students in Pharmacy. These laboratories are all equipped with the most approved apparatus for experimentation and illustration.

READING ROOM AND LIBRARY

The School of Pharmacy is provided with a well selected library and with a reading room, inaugurated by the class of 1897, in which are filed a large number of medical and pharmaceutical journals.

In addition to these advantages, students of this department enjoy the privileges of the University reading room, in which are filed all the leading newspapers and magazines, and free access to the University Library, which numbers sixty-seven thousand volumes and eighteen thousand pamphlets.

THE SUMMER SCHOOL

FACULTY AND OFFICERS

(1913)

*FRANCIS PRESTON VENABLE, Ph.D., D.Sc., LL.D., PRESIDENT.

NATHAN WILSON WALKER, A. B., DIRECTOR.

OSCAR LEACH, SECRETARY.

GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*

NATHAN WILSON WALKER, A. M., *Professor of Secondary Education.*

EDWARD KIDDER GRAHAM, A. M., *Professor of English.*

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *Alumni Professor of History.*

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

LOUIS ROUND WILSON, Ph. D., *Professor of Library Administration.*

JAMES MUNSIE BELL, Ph. D., *Professor of Physical Chemistry.*

THOMAS PERRIN HARRISON, Ph. D., *Professor of English in the North Carolina College of Agriculture and Mechanic Arts.*

REED SMITH, Ph. D., *Professor of English in the University of South Carolina.*

THOMAS JAMES WILSON, Ph. D., *Associate Professor of Latin.*

GEORGE MCFARLAND MCKIE, A. M., *Associate Professor of Public Speaking.*

ROBERT DIGGS WIMBERLY CONNOR, Ph. B., *Secretary of the North Carolina Historical Commission.*

GUSTAV HAGEDORN, *Dean of the School of Music in Meredith College.*

ELIZABETH BURTT HAGEDORN, *Professor of Piano in Meredith College.*

* Absent on leave 1913-1914.

HENRY PATRICK HARDING, A. B., *Assistant Superintendent of the Charlotte City Schools.*

ADOLPHE VERMONT, A. M., *Superintendent of Smithfield Graded Schools.*

MARY OWEN GRAHAM, *Assistant Superintendent of Public Instruction for Mecklenburg County.*

SAMUEL LLOYD SHEEP, M. E., *Superintendent of Elizabeth City Graded School.*

LIZZIE McIVER WEATHERSPOON, *Supervisor of Drawing in the Training School of North Carolina State Normal and Industrial College.*

LEILA M. COBB, *Critic Teacher in the Practice School of Winthrop College.*

GEORGE KENNETH GRANT HENRY, A. M., *Instructor in Latin.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

JOHN ELIPHALET SMITH, S. M., *Instructor in Geology.*

EDGAR ALLAN HODSON, B. S., *Instructor in Agronomy in the North Carolina College of Agriculture and Mechanic Arts.*

LILY NELSON JONES, *Supervisor of Writing in Durham City Schools.*

EDITH WINFIELD TRUITT, *Supervisor of Music in the Asheville City Schools.*

MARY PRITCHARD, Ph. B., *Teacher in the Chapel Hill High School.*

MRS. T. EDGAR JOHNSTON, *Supervisor of the Primary Department of the Salisbury Graded Schools.*

BESSIE WHITTED, A. M., *Teacher of Drawing in the Durham City High School.*

SPECIAL LECTURERS

LAUTREC CRANMER BROGDEN, *State Supervisor of Rural Elementary Schools for North Carolina.*

COLLIER CORB, A. M., *Professor of Geology.*

KARL JANSEN, *Popular Lecturer and Entertainer.*

GEORGE SOLOMON, *Rabbi Congregation Michve Israel.*

MISS MINNIE W. LEATHERMAN, *Secretary of the North Carolina Library Commission.*

EDWIN R. JACKSON, *Expert U. S. Forest Service.*

CHARLES DE GARMO, Ph. D., *Professor of Education in Cornell University.*

COURSES OF INSTRUCTION

ENGLISH

1. Grammar. A study of the principles of Grammar. Text-book: Robbins and Row's *Grammar and Composition*. *Six hours a week*. Associate Professor McKIE.
2. Grammar and Composition. A re-adjustment of mind toward the study of English Grammar involving a new appreciation of its importance is evidently in progress among thoughtful teachers. This fresh view of the subject and its practical application in composition will guide the instruction in this course. Text-book: Buehler's *A Modern English Grammar*. *Six hours a week*. Professor HARRISON.
3. Composition. Discussion of the principles of composition and practice in composition. Text-book: *English Composition: In Theory and Practice*, by Canby and others. *Six hours a week*. Professors GRAHAM and SMITH.
4. The Study of Literature. A consideration, through class discussion and lectures, of the meaning and methods of the study of literature. Numerous and varied illustrations will be considered the first two weeks, followed by a study of three plays of Shakespeare, and selections from three poets of the 19th century. *Six hours a week*. Professors GRAHAM and SMITH.
5. American Literature. Two distinctive periods of special significance have so far developed in American literature: one in New England, 1830-1870; the other in the Southern States since the Civil War. These periods will be studied in their general character and in the lives and works of representative writers. Methods of teaching literature will be discussed. Text-book:

any standard history of American literature, preferably Cairns's. The Library will be used for assigned reading. *Six hours a week.* Professor HARRISON.

6. Literature in the Grades. It is the purpose of this course to indicate materials and methods of teaching literature in the grades, and in developing a taste for good literature. Poetry and prose stories suited to each grade from the first to the eighth will be discussed, and each student will be required to prepare for and present at least one poem and one story. *Six hours a week.* Associate Professor McKIE.

HISTORY

1. The History of England. Lectures and assigned readings. Text-book: Walker's *Essentials of English History*. *Six hours a week.* Professor HAMILTON.
2. The History of the United States to the close of Reconstruction. Lectures and assigned readings. Text-book: Hart's *Essentials in American History*. *Six hours a week.* Professor HAMILTON.
3. North Carolina History. A review course on the leading events and men in the history of the State with special emphasis laid upon the social, economic, and political development of the people. Lectures and reference reading. Text-book: Hill's *Young People's History of North Carolina*. *Six hours a week.* Professor HAMILTON and Mr. CONNOR.
4. Greek History. A general course dealing with the social and political aspects of Greek civilization from its origin to the fall of the Macedonian Empire. Contrasts and comparisons between the Greek democracies and modern popular governments will receive attention. Lectures, text-books, and readings. Text-book: Myers's *History of Greece*. *Six hours a week.* Professor HAMILTON and Mr. CONNOR.
5. Roman History. A general course dealing with the social and political aspects of Roman civilization; the development of Roman power and the expansion of

Roman dominion; the organization of the world-state and the extension of Roman civilization; Rome's contribution to modern civilization. Text-book: Meyers's *History of Rome*. *Six hours a week*. Associate Professor WILSON and Mr. CONNOR.

LATIN

1. Elementary Course.—Pronunciation, inflection, syntax of cases and verbs; special study of the subjunctive, indirect discourse, relative and conditional sentences. Text-book: Bennett's *Latin Grammar*. *Six hours a week*. Professor HOWE.
2. Cæsar. A course in Cæsar's *Gallic War*, I-IV. Translation and syntax; reading at sight; special attention to methods of teaching. Any standard text of Cæsar's *Gallic War*. *Six hours a week*. Associate Professor WILSON.
3. Cicero. Course in Cicero's Orations against Catiline. Translation and syntax. Any standard text of the Orations against Catiline. *Six hours a week*. Professor HOWE.
4. Vergil. Course in Vergil's Aeneid, I-VI. Translation and syntax. Text-book: Any standard text of Vergil's Aeneid. *Six hours a week*. Mr. HENRY.
5. Latin Composition. *Three hours a week*. Mr. HENRY.
6. Horace. Reading of selected odes with some account of the life and times of the author. Text-book: any complete edition of Horace's Odes. *Three hours a week*. Professor HOWE.

GREEK

1. Elementary Greek. A course for teachers and those beginning the study of Greek. Special emphasis upon methods of teaching. Text-books: Moss's *First Greek Reader* and Babbitt's *Greek Grammar*. *Six hours a week*. Associate Professor WILSON.
2. Xenophon. A course in Xenophon's Anabasis, I-IV. Translation and Syntax, with special attention to pre-

sentation. Any standard text of *Xenophon's Anabasis*. *Six hours a week*. Associate Professor WILSON.

GERMAN

1. Elementary Course. Grammar. Written exercises. Text-books: Ball's *German Grammar*; Müller and Wenckebach's *Glück Auf*. *Six hours a week*. Mr. VERMONT.
2. Advanced Course. Rapid review of grammar. Composition, translation. Text-books: Ball's *Grammar*; Lessing's *Minna von Barnhelm*. *Six hours a week*. Mr. VERMONT.

FRENCH

1. Elementary Course. Grammar. Oral and written exercises. Pronunciation especially emphasized. Elementary conversation. Text-book: Lazare's *Lectures Faciles*; Chardenal's *French Grammar*. *Six hours a week*. Mr. VERMONT.
2. Advanced Course. Rapid review of grammar. Reading of French authors. For students who have had at least one year of French. *Six hours a week*. Mr. VERMONT.

MATHEMATICS

1. Arithmetic. Lectures and assigned work, including the fundamental operations, fractions, percentage, interest, ratio, and proportion, mensuration, etc. Text-book: Milne's *Progressive Arithmetic, Book III*. Two divisions, I and II. *Six hours a week*. Mr. SHEEP.
2. Secondary Algebra. Lectures and assigned work including factoring, simultaneous equations, exponents, involution and evolution, quadratic equations, the binomial theorem, etc. Text-book: Milne's *Algebra for Secondary Schools*. *Six hours a week*. Mr. HARDING.
3. Plane Geometry. Lectures and recitations. Text-book: Wells's *Essentials of Plane and Solid Geometry*. *Six hours a week*. Mr. HARDING.

4. Solid Geometry. Lectures and recitations. Special attention given to the solution of original exercises. Text-book: Wells's *Essentials of Plane and Solid Geometry*. *Six hours a week*. Professor STACY.
5. Plane Trigonometry. Lectures and recitations. Text-book: Granville's *Plane and Spherical Trigonometry*. *Six hours a week*. Professor STACY.

PHYSICS

1. Elementary Course. Mechanics of solids, liquids, and gases. Sound. *Six hours a week*. Professor PATTERSON and Mr. CHRISLER.
2. Elementary Course. Magnetism and electricity. Heat and light. Text-book: Millikan and Gale's *A First Course in Physics*. *Six hours a week*. Professor PATTERSON and Mr. CHRISLER.

Laboratory work will accompany these courses, using Millikan and Gale's *Manual*. Courses 1 and 2 may be taken together. Instruction will also be given in the making of simple apparatus, and in the best methods of representing the subject of Physics to high school classes.

3. Advanced Course. This is a lecture course profusely illustrated by experiments, giving a resume of the work in modern Physics, especially along the lines of the electron theory, radioactivity, vacuum tubes, wireless telegraphy and telephony, electric waves, etc. Course 3 may be taken with profit by anyone who has had an elementary course in Physics and Chemistry. *Three hours a week*. Professor PATTERSON.

ASTRONOMY

1. An Elementary Course in Descriptive Astronomy, taking up in order the earth, moon, planets, sun, stars, comets and nebulae. Illustrated with lantern slides, and including some outdoor work with the telescope. *Three hours a week*. Professor PATTERSON.

GEOGRAPHY

1. General Geography. A course dealing with home geography, and the geography of North Carolina; with

world relations and the features of the continents. The class will make a study of the influence of relief, climate, environment, etc., on plant and animal life, on human habitations, occupations, government, and industrial development, and upon the development and diffusion of civilization. Maps and laboratory work, and the historical, commercial, and agricultural phases of the subject will receive attention. The text-book adopted by the State (Dodge's *Comparative Geography*) will be used as a guide but others will be included in the critical discussions. *Six hours a week.* Mr. SMITH.

Laboratory fee, \$1.00.

2. **Physiography.** The genesis and classification of topographic forms will be considered and a general study of the physiographic provinces of the United States will be made. The reading of topographic maps, the use of weather maps, the study of minerals and rocks, and the consideration of special topics will be given an important place. Special attention will be given to the physiography of North Carolina and to its relation to the development and conservation of the natural resources of the state. Assistance will be given in the purchase, installation, and use of apparatus, instruments, and other equipment for field and laboratory work. The use of field and laboratory methods of instruction will be taught by practical demonstration involving the equipment of the Department of Geology and the field in the vicinity of Chapel Hill. Text-book: Salisbury, Barrows and Towers's *The Elements of Geography*. *Six hours a week.* Mr. SMITH.

Laboratory fee, \$3.00.

CHEMISTRY

1. **Inorganic Chemistry.** An introduction to the study of the principal elements and compounds. Lectures and laboratory work on alternate days. *Six hours a week.* Professor BELL.

Laboratory fee, \$3.00.

2. Analytic Chemistry. Prerequisite, Chemistry 1 above, or its equivalent. Qualitative Analysis during first three weeks, and Quantitative Analysis during second three weeks. Laboratory work daily with short lectures preceding. *Six hours a week.* Professor BELL.

Laboratory fee, \$5.00.

3. Agricultural Chemistry. Prerequisite, Chemistry 1 above, or its equivalent. An elementary study of the chemistry of plants, soils, fertilizers, insecticides, feeds and water. Daily lectures. *Six hours a week.* Professor BELL.

LIBRARY METHODS

1. Library Administration and Methods. (a) General lectures on organization and management of rural, graded, high school, teachers' association, college, and public libraries; use of dictionary card catalogue, indexes, bibliographies, dictionaries, encyclopedias, and general reference books; preparation for special readings, essays, themes, debates, etc.; selection and ordering of books and periodicals suitable for libraries; preparation of illustrated bulletins; children's books and reading. (b) Technical lectures on accessioning; classification and book numbers; cataloguing; shelf listing; charging systems; binding, rebinding, and mending books; care of periodicals and pamphlets; use of government publications. Practice in the Library. Practice and instruction will be given under an instructor at any time during the day to those devoting their whole time to the course. *Six hours a week.* Professor WILSON and Miss LEATHERMAN.

EDUCATION

1. Secondary Education. High school organization and administration. (For high school teachers and principals.) Lectures, assigned readings, and class-room discussions. *Three hours a week.* Professor CHASE.
2. Secondary Education. The principles of secondary education. (For high school teachers and principals.)

Lectures and assigned work. Brown's *The American High School* will constitute the basis of this course. *Three hours a week.* Professor CHASE.

3. Educational Psychology. Modern psychological principles and their application to education. Lectures and readings. *Six hours a week.* Professor CHASE.
4. Elementary School Methods. Model lessons for beginners. Model Class work, lectures, and assigned readings. Work with children just beginning school. A class of primary grade children will be organized for the purpose of this course. Lessons in phonics, reading, language work, numbers, nature study, etc., covering the general work of the first grade. Observation and practice teaching in the Practice School. This course will be given in two sections: I by Miss GRAHAM; II by Miss COBB. Each division, *six hours a week.*
5. Elementary School Methods. Methods and model lessons grades 2 and 3. Lessons, lectures, and assigned readings, covering the general work of the second and third grades. The writing of lesson plans. Games, songs, discussion and demonstration of the principles underlying the selection and presentation of stories to children. Special attention will be given to the reading and language work of these grades. Observation and practice teaching in the Practice School. The State-adopted books will be used in this course. *Six hours a week.* Miss GRAHAM.
6. Elementary School Methods. Class-room methods and practices of the intermediate and grammar grades. Lectures, discussions, readings, observation and practice teaching in the Practice School. *Six hours a week.* Miss COBB.
7. The Theory and Practice of Teaching. Lectures and assigned work. This course will be based on Colgrove's *The Teacher and the School.* *Three hours a week.* Professor CHASE.

DRAWING

Mrs. WEATHERSPOON and Miss WHITTED.

The course will be planned with a view to giving teachers instruction that will give the knowledge necessary to the teaching of school arts in rural and city schools. Plans by which the acquired knowledge can be adapted to the needs of different grades, and methods of presenting lessons in each grade will be carefully discussed and taught. The State-adopted course in drawing will be the basis of instruction, though the work will not be confined wholly to this.

The classes will be under three divisions:

1. Primary Division. For teachers of first, second and third grades. *Six hours a week.*
2. Grammar Division. For teachers of fourth, fifth, sixth, and seventh grades. *Six hours a week.*
3. Advanced Division. For former students who have attained the required degree of proficiency and for supervisors of drawing. *Three hours a week.*

WRITING

Miss JONES.

NOTE.—Free arm movement will be the basis of all the work in writing. The courses offered are planned to make better teachers of writing, hence there will be two definite purposes in view, to improve the handwriting of those taking the courses and to study best methods to be used in teaching children to write.

The courses offered will be helpful to teachers no matter what system they have to teach, as the instruction will be along broad lines, and principles rather than systems will be most emphasized.

In one class (1) the State-adopted copy books will be used, and methods will be emphasized. In another class (2) the prominence will be given to acquiring a free arm movement writing.

Model lessons in primary grades will be given, with and without copy books; blackboard writing; correlation of writing with other studies.

1. Handwriting in the Public Schools. A course for public school teachers. The *Berry Writing Books*, adopted for use in the public schools of North Carolina, will be used in the main, though not exclusively. Two sections, I and II. Each *three hours a week*.
2. Free Arm Movement. In this course the free arm movement will be emphasized; lectures and drills. Two sections, I and II. Each *three hours a week*.

MUSIC

1. Public School Music. Sight-singing, rhythm, sense-training, observation, school music, mechanics, and folk-songs. This course is intended primarily for the grade teacher in the public schools, and will be extended in any direction to suit the needs of the class. *Six hours a week*. Miss TRUITT.
2. Public School Music. Sight-singing, chromatics, dictation, rhythm, two- and three-part singing, suggestions for chorus conducting, the selection of material, etc. *Six hours a week*. Professor HAGEDORN.
3. Public School Music. A course intended for those wishing to qualify themselves as supervisors. It is open only to those who have completed courses 1 and 2 or their equivalent. This course will deal with especial tasks of the supervisor, his relation to the grade teacher, the mechanics of the music lesson, the formation of choruses, chorus conducting, public performances, and other problems. *Three hours a week*. Professor HAGEDORN.
4. Ear Training and Elementary Harmony. The course embraces the formation and recognition of major and minor scales, triads, and intervals, and all seventh chords. The harmonization of simple melodies employing simple or primary harmonies. Text-book: Tapper's *First Year Harmony*. *Three hours a week*, alternating with Music 5. (See Note under 5.) Professor HAGEDORN.

5. Theory. A course embracing the study of notation, accents, rhythm, scales, acoustics, all tempo marks, etc. Text-book: Tapper's *First Year Theory*. *Three hours a week*, alternating with Music 4. Professor HAGEDORN.

NOTE.—Courses 4 and 5 should be taken together. For the two courses a tuition fee of \$5.00 will be charged.

6. Advanced Harmony. Those desiring private instruction in advanced harmony, counterpoint, and composition, can make arrangements for this with Professor HAGEDORN. A fee of \$5.00 will be charged for this course. Professor HAGEDORN.
7. Piano and Violin. Piano and Violin are taught by both Professor and Mrs. HAGEDORN. Those desiring private instruction can make arrangements for it with Professor HAGEDORN. A fee of \$5.00 will be charged for either of these courses. Mrs. HAGEDORN.

A chorus will be organized under the direction of Professor Hagedorn, and one or two choral concerts will be given near the close of the Summer School. Professor Hagedorn will also have charge of the Chapel music.

AGRICULTURE AND NATURE STUDY

1. Elementary Agriculture. A study of the fundamental principles of agriculture to be presented in such a manner as will enable the student to acquire a knowledge of the relation of agricultural instruction to the other subjects and at the same time give such popular information as will be needed to awaken the enthusiasm of the student. A study of the benefits and methods of inoculation for legumes; seed and plant study; fertilizers, fertility, etc. *Six hours a week*. Mr. HODSON.
2. Nature Study. A brief analytical study of plants; their functions, assimilation, and growth; nature study in general in the public schools in connection with gen-

eral information of popular interest; methods and materials. *Three hours a week.* Mr. HODSON.

3. School Gardening. A brief study of plans and methods for conducting the school garden; plants to be grown, rate of seeding, time of planting, etc.; a general survey of the subject with special attention to the beautifying of school grounds. *Three hours a week.* Mr. HODSON.

THE BUREAU OF EXTENSION

COMMITTEE

LOUIS ROUND WILSON, Ph. D.
EDWARD KIDDER GRAHAM, A. M.
NATHAN WILSON WALKER, A. B.
MARVIN HENDRIX STACY, A. M.
ANDREW HENRY PATTERSON, A. M.
CHARLES LEE RAPER, Ph. D.
HARRY WOODBURN CHASE, Ph. D.
MARCUS CICERO STEPHENS NOBLE.
COLLIER COBB, A. M.

The Bureau of Extension offers to the people of the State:

I. GENERAL INFORMATION

Concerning books, readings, essays, study outlines, and subjects of general interest. Literature will be loaned from the Library upon the payment of transportation charges each way.

II. INSTRUCTION BY LECTURES

Lectures of a popular or technical nature and addresses for commencement or other special occasions will be furnished any community which will pay the traveling expenses of the lecturer. The subjects offered fall into three groups, their nature being indicated by the letters A. B. C. as follows:

Lectures marked A. are popular and of general interest.

Lectures marked B. are specific or technical for study clubs, institutes, farmers' meetings, etc.

Lectures marked C. are lectures or addresses for special meetings, such as commencement, patriotic, and dedicatory occasions, Memorial Day exercises, conventions, etc.

Lectures suitable for both general and special occasions are marked with two letters. In some instances the titles of commencement addresses are not given.

CHARLES WESLEY BAIN, A. M., LL. D., *Professor of Greek.*

- B. 1. The Greek Drama; Its Origin and Development.
 - B. 2. Aeschylus.
 - B. 3. Sophocles.
 - B. 4. Euripides.
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WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*

- A. or B. 1. History of Architecture (one or more lectures).
 - A. or B. 2. History of Sculpture (one or more lectures).
 - B. 1. What Is Art?
 - B. 2. The Birth of the Soul in Art.
 - B. 3. Architecture and Civilization.
 - C. 1. Education vs. Culture.
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JAMES MANNING BOOKER, Ph. D., *Associate Professor of English.*

- A. 1. The Fiction-Making Mind (illustrative readings).
 - A. 2. The Irish Plays (illustrative readings).
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HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

- A. 1. Fitting the School to the Child.
 - A. 2. The School and the Twentieth Century.
 - A. 3. The Child and Heredity.
 - A. 4. Eugenics.
 - B. 1. The Individual Child.
 - B. 2. The High School Pupil.
 - B. 3. Are the Schools Out of Touch With Life?
 - B. 4. Character Formation and the School.
 - C. 1. Citizenship and the School.
 - C. 2. What the School Ought to Do for the Child.
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COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*

- A. 1. Where the Wind Does the Work. (An account of the sand-reefs along the North Carolina Coast. Illustrated.)
- A. 2. Lessons from the Landes of Gascony. (A region of swamp lands and dunes reclaimed by drainage and tree-planting. Illustrated.)
- A. 3. The Yellowstone National Park: America's Wonderland. (Illustrated.)

A. 4. The Work of Snow and Ice. (An account of the glaciers of the Alps and of Alaska. Illustrated.)

A. 5. Paradiso and the Lake District of Northern Italy. (Illustrated.)

B. 1. Geology in Relation to Soils, Drainage, and Crops.

B. 2. Geology in Relation to Wood-textures, the Timber Market, and Wood-using Industries.

B. 3. Geology and Water Supply.

C. 1. Education for Service.

C. 2. New Ideas from the Old World.

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*

A. 1. A Visit to Luther Burbank. (A description of Mr. Burbank's fruit and flower breeding establishment at Sante Rosa, California. Illustrated.)

A. 2. Across Porto Rico. (A traveler's impressions of this beautiful tropical country. Illustrated.)

B. 1. Bacteriology for the Housewife. (Designed to give an idea of the structure and activities of bacteria and their relation to house-keeping. Illustrated.)

B. 2. Plant Breeding and Its Relation to the Improvement of Farm Crops. (Illustrated by specimens.)

EDWARD KIDDER GRAHAM, A. M., *Acting President and Professor of English.*

A. 1. The Progressive. (A popular lecture on community spirit and development.)

A. 2. The Enjoyment of Books. (A popular lecture on reading.)

C. 1. Ideals and Tasks.

JOSEPH GREGOIRE DE ROULHAC HAMILTON, Ph. D., *Alumni Professor of History.*

A. 1. Andrew Jackson, a Product of Democracy.

A. 2. The Real Abraham Lincoln.

B. 1. The Locality as a Field for Historical Investigation.

C. or B. 1. The Question of Constitutional Amendment.

ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*

A. or C. 1. The South's Awakening.

B. 1. The Teaching of Geometry.

B. 2. The Foundations of Geometry.

CHARLES HOLMES HERTY, Ph. D., *Smith Professor of General and Industrial Chemistry.*

- A. or B. 1. Chemistry in the Service of Cotton.
 - A. or B. 2. Aiding Nature in our Pine Forests.
 - B. 1. Home Illumination.
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THOMAS FELIX HICKERSON, A. M., *Associate Professor of Civil Engineering.*

- B. 1. Problems of Highway Location, Construction, and Maintenance.
 - B. 2. Engineering for Land Drainage.
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GEORGE HOWE, Ph. D., *Professor of Latin.*

- A. 1. The Poetry of the Augustan Age.
 - B. 1. The Teaching of Latin in the High Schools.
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GEORGE MCFARLAND MCKIE, A. M., *Associate Professor of Public Speaking.*

- A. 1. Recitals from Kipling.
 - A. 2. Recitals from Tennyson and Browning.
 - A. 3. Recitals from Modern American Humorists.
 - B. 1. The Essentials of Public Speech.
-

WILLIAM DEBERNIERE MACNIDER, M. D., *Professor of Pharmacology.*

- A. or B. 1. The Origin and Prevention of Epidemics of Typhoid Fever.
 - B. 1. The Value of Diuretic Substances in Different Types of Nephritis. (For county medical meetings.)
 - B. 2. The Effect of Different Anesthetics on the Pathology of the Kidney in Acute Nephritis.
 - B. 3. The Effect of Chloroform and Ether on the Heart.
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MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy.*

- A. 1. Scotland and Its Schools.
- A. 2. Community Progress.
- A. 3. Public Schools and Public Taxes.
- A. 4. The Influence of Geography on North Carolina History.
- B. 1. Methods of Teaching in the Public Schools.
- B. 2. School Management, the Teacher, the Pupil, and the Parent.
- C. Commencement and Educational Rally Addresses.

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

- A. 1. The Story of the Stars. (Illustrated.)
 - A. 2. The Gyroscope and Its Applications. (With experiments.)
 - A. 3. Sound Waves and Their Uses. (With experiments.)
 - B. 1. The Story of Radium. (With demonstrations.)
 - B. 2. The Teaching of First Year Physics. (With experiments.)
 - C. Commencement Addresses.
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EDGAR RALPH RANKIN, A. B., *Secretary of the High School Debating Union.*

- B. 1. How to Organize and Conduct High School Literary and Debating Societies.
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CHARLES LEE RAPER, Ph. D., *Professor of Economics.*

- A. or C. 1. Taxation by the State.
 - A. or C. 2. Taxation by the Municipality.
 - A. or C. 3. Taxation and the Proposed Amendments to the Constitution.
 - B. 1. Co-operative Marketing of Farm Products.
 - B. 2. Credits Institutions for the Farmers.
 - C. Commencement Addresses.
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JAMES FINCH ROYSTER, Ph. D., *Professor of English.*

- A. or B. 1. The Staging of a Shakesperian Play. (Illustrated.)
 - B. 1. Methods of Studying the Modern Drama.
 - B. 2. Woman Suffrage on the Stage.
 - B. 3. Progressive Changes in Our Everyday Speech.
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MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

- A. or C. 1. Some High School Problems.
 - B. 1. The Farmers' Part in Highway Improvement.
 - C. Commencement Addresses.
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NATHAN WILSON WALKER, A. B., *Professor of Secondary Education.*

- A. or C. 1. The School and the Community.
- A. or C. 2. Education and Democracy.
- A. or C. 3. Our Country High Schools and Their Work. (Illustrated.)
- A. or C. 4. The Newer Demands Upon the School and How They Are to Be Met.
- A. or C. 5. The State's Educational Agencies.

LESTER ALONZO WILLIAMS, Ph. D., *Professor of School Administration.*

- A. 1. The Parent and the School.
 - B. 1. Those Little Animals We Teach.
 - B. 2. The Value of Experiment in Teaching.
 - B. 3. The Pedagogy of Reading.
 - C. 1. As a Man Readeth, So Is He.
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LOUIS ROUND WILSON, Ph. D., *Professor of Library Administration.*

- B. 1. The Public Library in Community Building.
 - B. 2. Books for the Farm and How to Get Them.
 - B. 3. The Library's Place in the High School Community.
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III. CORRESPONDENCE COURSES

Announcement

The University of North Carolina offers to teachers and others extension courses by correspondence under the direction of the School of Education.

The following courses will be given during 1913-'14: Economics, Education, English, German, History, Mathematics, and Rural School Development.

Purpose

These courses are but the beginning of a greater extension work that the University hopes to be able to offer teachers and the public generally at an early day. In this way, it will place University instruction within easy reach of all who may be unable to attend its regular sessions.

The courses are planned with the hope that they will increase both the teacher's and the general reader's knowledge of the subject matter of the text-book and that they will, at the same time, present a rational and consistent method of instruction for the teacher's use in the classroom.

Method and System

Text-books will be required and definite assignments for study will be made as soon as a student registers for the course. Written recitations on the assignments will be required. The papers are to be sent to the instructor who will grade them, make the necessary corrections and suggestions, and return them to the student. In this way direct personal instruction will be given to all. A written examination will be held at the completion of the course.

Time Required

It will require about thirty-two weeks to complete a full course. A course may be begun at any time between October first and March first. If a course should be begun too late in the college year to be completed before the close of the year, it may be completed the following term. Each course will be divided into two parts so that the student may take a full course at his convenience.

Certificates

Upon the satisfactory completion of a course, a certificate to that effect will be promptly issued and sent to the student.

Tuition

The charge for each course is two dollars and the cost of the necessary postage. The fee of two dollars is to be paid upon registration. This small fee will barely cover the cost of stationery and printing. The instruction will be given by regular members of the University faculty whose only motive for giving the several courses is public service and not pecuniary reward.

COURSES OF INSTRUCTION

Economics

1. Economics and Government. A general course in elementary economics. It will treat of the uses of wealth for living, development, and government. It will also treat of the making of wealth by means of agriculture,

manufacture, commerce, and transportation. Text: Raper's *Principles of Wealth and Welfare*. Professor RAPER.

Education

1. A brief study of the Principles of Teaching, the preparation of model lessons based on principles studied. Text: DeGarmo's *Essentials of Method*. Professor NOBLE and Professor WILLIAMS.
2. High School Organization: a study of the American High School, its curricula and methods. Text: Bivin's *American High School*. Professor WILLIAMS.

English

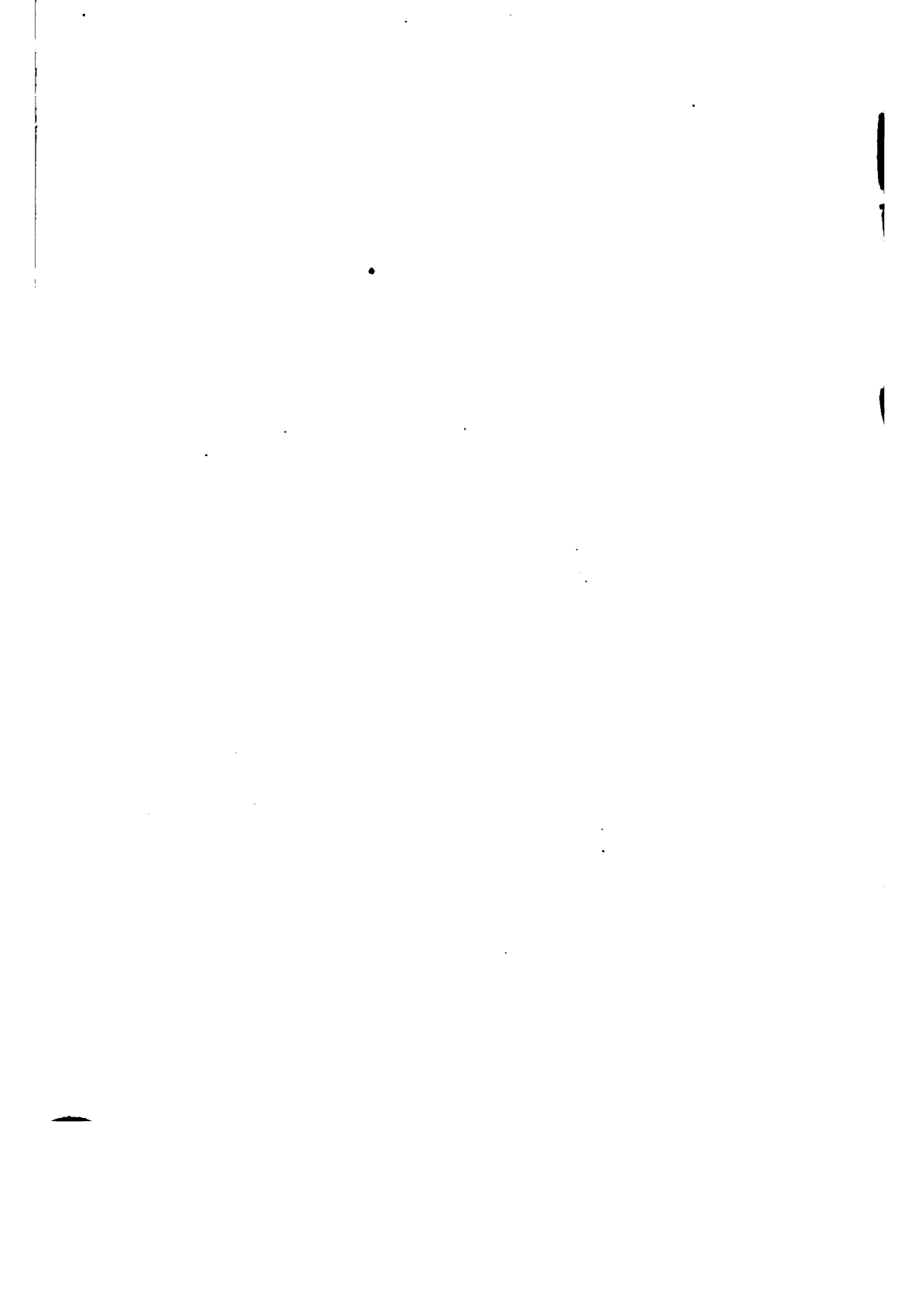
1. Rhetoric and Composition. Practice through theme-writing in punctuation, sentence structure, paragraphing, and the simpler forms of composition. Text: Wooley's *Handbook of Composition*. Associate Professor BOOKER and Mr. SNEATH.
2. General Reading Course in English Literature. The course will attempt to guide the student in a careful and intelligent reading of masterpieces selected from the various periods of English Literature. Professor GRAHAM and Professor ROYSTER.
3. The Modern Drama. Reading and criticism of representative modern dramas: Ibsen, Shaw, Pinero, Jones, Galsworthy, Barker, Hauptmann, Sudermann, Schnitzler, Maeterlinck, Rostand, Brieux, Strindberg. Professor ROYSTER.

German

1. An elementary course equivalent to the first year of high school German. Drill in the essentials of German grammar, translation of easy idiomatic German. Text: Mosher's *Lern-und-Lesebuch*. Professor TOY.

PART FIVE

THE UNIVERSITY LIBRARY
PUBLIC LECTURES
THE BYNUM GYMNASIUM
LABORATORIES
UNIVERSITY ORGANIZATIONS



THE UNIVERSITY LIBRARY

OFFICERS

LOUIS ROUND WILSON, Ph. D., *Librarian*.
CHARLES LEE RAPER, Ph. D., *Committeeman*.
WILLIAM CHAMBERS COKER, Ph. D., *Committeeman*.
WILLIAM MORTON DEY, Ph. D., *Committeeman*.
JAMES FINCH ROYSTER, Ph. D., *Committeeman*.
NAN SPOTSWOOD STRUDWICK, B. L. S., *Assistant Librarian*.
LOUISE RICHARDSON, A. B., *Assistant Librarian*.
JOHN ROBERT GENTRY, *Assistant in the Library*.
JESSE FORBES PUGH, *Assistant in the Library*.
JAMES EUGENE HOLMES, *Assistant in the Library*.
WILLIAM RAYMOND TAYLOR, *Assistant in the Library*.
FRANK HODGES COOPER, *Assistant in the Library*.

The University Library contained at the end of the academic year 1912-1913 sixty-seven thousand and four hundred and fifty-two volumes and about eighteen thousand seven hundred pamphlets. This collection has been largely classified and catalogued according to the Dewey, or decimal system, and its contents have been rendered easily accessible by means of a thorough dictionary author, title, and subject card catalogue.

The Library funds are expended under the direction of the Librarian, the Library Committee, and Professors in charge of Departments with special reference to the instruction given in the University. The annual addition of books from purchase, donations, and exchanges is about thirty-seven hundred volumes, all of which are carefully classified and catalogued as they are received.

The Librarian and those assisting in the Library are constantly in attendance to give help in any line of research or reading. A special collection of dictionaries, encyclopedias, almanacs, handbooks, atlases, concordances, and other reference books is provided for general use in the reference room.

In addition to the resources of the general reference room, the Library places at the disposal of students for reference purposes a collection of ten thousand bound periodicals cover-

ing all fields of general, technical, and professional information. A great number of the sets belonging to this collection are complete from their beginning, and consequently completely cover the history and progress of the subjects of which they treat. In this way students pursuing general academic and special technical or professional courses have access to the best American, English, and Continental periodical literature to be found on their subjects. The articles contained in these files are fully indexed in special periodical indexes and are referred to with ease.

Eight hundred and thirty-six current periodicals, transactions of literary, scientific, historical and other societies, university studies, serial publications, and a half hundred daily and weekly newspapers, continuing and supplementing the bound sets, are subscribed for and received annually. They are to be found in the general periodical room and in the seminars, professional schools, and scientific laboratories, where they can be consulted in the course of daily work.

As the Library is a depository for the publications of the United States government, it contains more than seven thousand volumes of material especially valuable for reference in debate and in the study of social and political science, useful arts, and the natural sciences. This collection is thoroughly indexed and its contents are easily consulted.

Five special seminar rooms have been equipped in the general Library to facilitate advanced work in English and German Literatures and Languages, Greek and Latin Literatures and Languages, the Romance Literatures and Languages, History, and North Carolina History. Special scientific and professional collections are to be found in the libraries or seminars belonging to the departments in which such instruction is given. These collections are under the supervision of the instructors in the respective departments and the Librarian, and aid is given students in the use of books relating to their work.

The main Library is housed in a commodious modern library building erected in 1907, and represents an expenditure for construction and equipment of \$66,500.00. The reference, current periodical, and seminar rooms in the main Library are large, well lighted, and have table and seating capacity for two hundred students at one time.

The stack room contains two levels of steel shelving with stairway and glass mezzanine floor between and, with its present complement of shelving, capacity for seventy thousand volumes. Its ultimate capacity is one hundred and five thousand volumes, which, taken with that of the other parts of the building, totals one hundred and seventy-five thousand volumes.

Brief instruction in the use of the card catalogue, the periodical indexes, and the reference books generally, is given new students at the beginning of each year, and to any student at any time who may request it. Instruction in a regular University class is also given to students who are preparing for positions in school and public libraries with a view to making them more efficient in the discharge of their special duties.

The Library is open on week days from 8:30 A. M. to 1:15 P. M., and from 2:00 P. M., to 5:00 P. M.; on week day evenings, Saturday excepted, from 7:00 P. M. to 9:30 P. M.; on Sunday, from 2:30 P. M. to 4:30 P. M.; on University holidays from 3:00 P. M. to 4:00 P. M.

The following rules are considered necessary for the proper use of the Library. They will be enforced with strict impartiality.

Subscribers to the Library are the students and members of the faculty.

Other persons who desire to use the Library may become subscribers on payment of the regular Library fee.

The Library fee is four dollars a year, two dollars a term, or fifty cents a month.

Persons who are not subscribers may not borrow books on a subscriber's name.

Not more than three books may be charged to one name at the same time.

Fines for books kept over fourteen days (including the day of issue) will be imposed with exact regularity at the rate of five cents per day. Books borrowed for debate or for class use may be kept out from 9 P. M. until 10 A. M. of the following day. After that hour they are subject to a fine at the rate of five cents per hour. The date on the pocket on fly-leaf of book is sufficient notice when the book is due.

Failure to pay fines within three weeks from the time they are due will debar the delinquent from further use of the Library.

Books from the reference room must remain in the Library during Library hours. They may be loaned only at the discretion of the Librarian.

Magazines must not be removed from the Library until they are bound. If removed they are subject to the regulations applying to debate books.

Mutilation of books or magazines, or defacement by writing in them, must be paid for by purchase of a new copy.

Any conversation in the Library, except to obtain books desired, is forbidden.

Continued disregard for any of these rules will cause the offender to forfeit the right to use the Library.

PUBLIC LECTURES

THE JOHN CALVIN McNAIR LECTURES

The lecture fund established by the will of John Calvin McNair, of the class of 1849, became available in 1906, and the interest therefrom rendered it possible to begin the lectures in 1908. The honorarium for the lectures amounts to \$500, and the remainder of the interest from the fund provides for the suitable publication of the lectures. Under the will the objects of the lectures "shall be to show the mutual bearing of science and religion upon each other and to prove the existence of attributes (as far as may be) of God from nature."

The lectures for 1908 were delivered by Professor Francis H. Smith, LL. D., of the University of Virginia. The three lectures were:

1. The general theme: God Manifest in the Material Universe.
2. His Attributes as Manifested in Physics.
3. His Attributes as Manifested in Astronomy.

The lectures for 1909 were delivered by President Francis Landey Patton, D. D., LL. D., of Princeton Theological Seminary, New Jersey. The four lectures were:

1. The Authority of the Bible.
2. The Authority of the Church.
3. The Authority of Christ.
4. The Authority of the Reason.

The lectures for 1910 were delivered by President David Starr Jordan, Ph. D., M. D., LL. D., of Leland Stanford, Jr., University, California. The lectures were on the theme:

The Stability of Truth.

The lectures for 1911 were delivered by Professor Henry Van Dyke, D. D., LL. D., of Princeton University. The three lectures were:

1. The Poetry of Nature.
2. The Poetry of Patriotism and Humanity.
3. The Poetry of the Unseen World.

The lectures for 1912 were delivered by President Arthur Twining Hadley, A. M., LL. D., of Yale University. The three lectures on the general subject, *Some Tendencies of Modern Philosophic Thought*, were:

1. Changed Conceptions of Science.
2. New Views of Ethics and of Politics.
3. The Spiritual Basis of Modern Literature.

The lectures for 1913 were delivered by Professor Francis G. Peabody, A. M., D. D., LL. D., of Harvard University. The three lectures were:

1. The Practicability of the Christian Life.
2. The Christian Life and the Modern Home.
3. The Christian Life and Modern Business.

The lectures for 1914 were delivered by President George Edgar Vincent, Ph. D., LL. D., of the University of Minnesota.

LECTURES UNDER THE CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE

Professor Shosuke Sato, D. Agr., Ph. D., of North Eastern Imperial University, Japan, exchange professor for 1914 under the Carnegie Endowment for International Peace, offered the following lectures:

1. From Old Feudalism to New Imperialism.
2. Local Autonomy and Constitutional Government.
3. Finance—Its Past and Present.
4. Social Reforms and Changes since Restoration.
5. Educational System and Religious Movements.

UNIVERSITY LECTURES

The following University lectures were delivered during the session 1912-1913:

Prof. Harvey Ernest Jordan, Ph. D.: *Eugenics*.

Mr. Edwin Markham: *The Relation of Poetry to Science*.

Dean John Whitridge Williams, A. B., M. D.: *The Reorganization of the Clinical Courses*.

Prof. Percy H. Boynton: *Victorian London*.

Rev. Samuel McChord Crothers, A. B., D. D., Litt. D.: *The Pleasures of an Absentee Landlord*.

Mr. Joseph Austin Holmes, D. Sc., LL. D. : 1. The Work of the Bureau of Mines. 2. The Panama Canal.

UNIVERSITY SERMONS

The University sermons for the session 1912-1913 were delivered by :

Rev. George W. Lay, D. D., of St. Mary's College.

Rev. W. N. Johnson, of Wake Forest.

Rev. Plato Durham, D. D., of Winston-Salem.

Rev. D. H. Ralston, D. D., of Charlotte.

President Jesse C. Caldwell, of Atlantic Christian College.

Rev. R. C. Craven, of Durham.

WILLIAM PRESTON BYNUM, JR., GYMNASIUM

ROBERT BAKER LAWSON, M. D., *Director.*

CARL DUFFY TAYLOR, *Assistant.*

WILLIAM PELL TAYLOR, *Assistant.*

The William Preston Bynum, Jr., Gymnasium, the gift of Judge William Preston Bynum, in memory of his grandson, William Preston Bynum, Jr., of the class of 1893, is a handsome, two-storied brick building, furnished with modern apparatus, swimming pool, baths, lockers, and running track. It contains also the trophy room and the office of the Physical Director.

Exercise in the Gymnasium is required three hours a week of all freshmen, unless excused by the Physical Director. In the fall, a thorough physical examination of each freshman is made, and the heart, the lungs, the eyes, and the ears are tested, in order that students defective in physical development may be given special work under the personal supervision of the Director. Round shoulders, flat chests, curvature of the spinal column, hernia, and mild cases of congenital paralysis are thus often greatly benefited and sometimes completely corrected. No student need fear ill results from the work. It is absolutely free from strain of any sort, and is directed in strict accordance with the results of the physical examination. It is impossible to attach too much importance to this examination, since it points out the muscular, functional, or organic defects, and enables the student to direct his efforts toward their correction.

LABORATORIES AND MUSEUMS

THE PHYSICAL LABORATORIES

ANDREW HENRY PATTERSON, A. M., *DIRECTOR and Professor of Physics.*

PARKER HAYWARD DAGGETT, S. B., *Professor of Electrical Engineering.*

VIVIAN LEROY CHRISLER, A. M., *Instructor in Physics.*

EDWIN FULLER CONRAD, *Assistant in Physics.*

BASCOM LEE FIELD, *Assistant in Physics.*

WILLIAM RENNY HARDING, *Assistant in Physics.*

JOHN WESLEY McIVER, *Assistant in Electrical Engineering.*

The Physical Laboratory occupies the eastern half of the main floor and almost the whole of the basement floor of the Alumni Building, amounting to about eight thousand square feet of floor space.

The main floor is divided into a large lecture room, an apparatus room and two laboratories for students in the general course.

In the rooms of the basement are located a large lecture room and the electrical laboratories, including a dynamo laboratory, photometric laboratory, storage-battery room, standardizing laboratory, high-tension laboratory, a laboratory for electric and magnetic measurements and the departmental library and office.

The dynamo laboratory is equipped with standard types of machines varying in size from 2 to 10 H. P., including various shunt and compound dynamos, a 2H. P. series crane-motor, 3 H. P. commutating-pole motor, 5 K. V. A., 3-phase alternator, 3.5 K. V. A. polyphase alternator, 2 H. P., single phase induction motor, 3 H. P., 3-phase induction motor of squirrel-cage type, 5 H. P., 3-phase induction motor, slip-ring type, 3 K. W. polyphase synchronous converter, a number of distributing type transformers and a set of transformers with taps for "T" connection. There are also provided a large number of rheostats, controllers and starting-boxes, a large lamp bank arranged for delta or star connection and two port-

able testing tables with facilities for rapid testing work. None of the windings of the machines is connected up permanently, but all windings and all apparatus are fitted with a plug-and-socket system of connections, and the students are required to make all the connections for each test.

The photometric laboratory is equipped with a standard Reichsanstalt photometer bench with three-meter track, Bunsen screen, Lummer-Brodhun disappearance and contrast screens, and a flicker photometer built by the students. There is also a small photometer arranged for rapid commercial testing. The laboratory is supplied with the following photometric accessories: standard Hefner lamp; a number of certified carbon and tungsten incandescent standards; a compound rotator and an arc lamp mirror selector for taking flux distribution curves; a luxometer for illumination surveys, and a number of shades and reflectors of various types. The laboratory is also supplied with constant potential and constant current arc lamps, direct and alternating current types, a 4-ampere magnetite arc, 12-ampere flaming-arc and a 3.5-ampere mercury-arc.

The storage battery room contains sixty 240-ampere-hour cells made by the Electric Storage Battery Co. This battery furnishes a steady supply of direct current at 120 volts for photometric work, calibration of instruments and for general testing. The voltage is controlled by 8 end-cells located in a room off the dynamo laboratory.

The standardizing laboratory is equipped with a Weston laboratory standard voltmeter, a Siemens-Halske laboratory standard ammeter, Hartmann & Braun Hot-wire voltmeter and ammeter for intermediate standards, a number of Weston standard cells and a Leeds and Northrup Potentiometer with volt-box and a set of standard shunts and multipliers. The circuits of the room are arranged for rapidly calibrating the laboratory testing instruments at any time.

The electric light, central heating, and waterworks plants constitute valuable adjuncts to the laboratory. For work in practical testing there are available a 35 H. P. Ball engine, a 20 H. P. slide-valve engine, two types of steam pumps, two gasoline engines, with calorimeters, meters, thermometers, Orsat apparatus, indicators and other accessory apparatus necessary for making complete tests on power plants. The

central power plant of the University also contains a 115 H. P. Ball and Wood engine, direct-connected to a Crocker-Wheeler 3-phase generator; a 70 H. P. Skinner engine with direct-connected General Electric 3-phase generator; a 50 H. P. De Laval steam turbine; a D'Olier four-stage centrifugal pump, direct-connected to a 75 H. P., 3-phase Crocker-Wheeler motor, and all necessary accessories.

CHEMISTRY HALL

CHARLES HOLMES HERTY, Ph. D., *DIRECTOR and Smith Professor of General and Industrial Chemistry.*

ALVIN SAWYER WHEELER, Ph.D., *Professor of Organic Chemistry.*

JAMES MUNSIE BELL, Ph. D., *Professor of Physical Chemistry.*

WILLIAM LEWIS JEFFRIES, A. M., *Instructor in Chemistry.*

JAMES TALMAGE DOBBINS, A.M., *LeDoux Fellow in Chemistry.*

CARNIE BLAKE CARTER, B. S., *Fellow in Technical Chemistry.*

VICTOR CLYDE EDWARDS, A. B., *Fellow in Chemistry.*

LELAND BROWN RHODES, B. S., *Fellow in Organic Chemistry.*

FRANK DAVIES CONROY, *Assistant in Chemistry.*

VICTOR ALDINE COULTER, B. S., *Assistant in Chemistry.*

ARTHUR JAMES FLUME, *Assistant in Chemistry.*

WILLIAM AUGUSTUS RUDISILL, B. S., *Assistant in Chemistry.*

JACKSON TOWNSEND, A. B., *Assistant in Chemistry.*

The overcrowded condition of the laboratories and lecture room in Person Hall, and the unsatisfactory ventilation of the laboratories, made urgent the need for a larger and better arranged building for the Department of Chemistry. These facts, together with the complete plans for a new building, were laid before the Legislature in 1905 and an appropriation of \$50,000 asked. The appropriation was voted, and in a short while the work of construction was under way.

The new building, Chemistry Hall, is located east of Alumni Hall and north of the New East building, facing west. By the selection of this location good water pressure is assured for all of the laboratories in the building.

The outer walls are of salt and pepper brick laid with black mortar.

The main building, 120 x 68 x 48, comprises a first floor, a second floor, and a commodious basement. Adjoining this main building and to the rear of the center is the lecture room, 41 x 62 x 22.

To the right on entering the main building are the office and the private laboratory of the Director, the department library, and a small laboratory: to the left are the office and private laboratory of the Professor of Organic Chemistry, a large laboratory for organic chemistry, containing locker desks for twenty-four students, and a combustion room.

On the rear or east side of the first floor are the laboratories for organic chemistry for medical students (thirty-two desks), and a private laboratory, advanced quantitative analysis (twenty-four desks), and a research laboratory (six desks).

On the second floor are the laboratories for general chemistry (sixty-six desks), qualitative analysis (sixty desks), physical chemistry (eight desks), electro-chemistry (eight desks), a research laboratory (sixteen desks), a laboratory for quantitative analysis (forty-eight desks), a fume room, and a small lecture room. At the ends of the corridor on the second floor are a balance room, preparation room, and a dark room for spectroscopic work.

In the basement are the assay laboratory, rooms for gas machine, electric furnace, technical chemistry, constant temperature, a photographic dark room, a carpenter-shop, stock room for heavy chemicals, and a large stock room for chemicals and apparatus. From this stock room material is supplied to each floor of the building by an elevator.

Each laboratory is furnished with ample fume closets for the removal of noxious gases, while pivoted window sash insure proper ventilation of the rooms.

The entire building is heated by hot water from the central system of the University.

The main entrance hall leads direct to the lecture room, which is well lighted by high arched windows and has a seating capacity of two hundred, which can be increased somewhat as need requires. To the rear of the lecture room are a preparation room, and a museum for specimens of typical chemicals, minerals, and products illustrating the various phases of chemical industries. Above these two last rooms is a small room for filing charts, diagrams, etc., used in illustrating lectures.

The recently installed storage battery in the Department of Physics furnishes ample current for stereopticon purposes and for motors.

THE BIOLOGICAL LABORATORY

HENRY VAN PETERS WILSON, Ph. D., DIRECTOR, and *Professor of Zoology*.

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany*.

WESLEY CRITZ GEORGE, A. M., *Instructor in Zoology*.

HENRY ROLAND TOTTEN, A. B., *Assistant in Botany*.

The Biological Laboratory, Davie Hall, is occupied by the Departments of Zoology and Botany. The building is a rectangular structure of pepper and salt brick and is divided into a main body and two wings. The total length is 125 feet, the depth of the main body 44 feet, that of the wings 38 feet. A basement underlies the whole, above which are two floors. The main body has an additional third chamber, which extends out over the wings, forming spacious air chambers. The building faces north and south, lies to the east of the New East, and adjoins the Arboretum.

The entrance hall, on the first floor, lit with large windows on either side of the main doorway, serves for the exhibition of museum specimens of a more popular character. Back of the entrance hall are herbarium, a room for charts and other lecture apparatus, and a room for the storage of zoological specimens. The west wing of this floor is occupied by a lecture room with a seating capacity of one hundred and twenty, the east wing by a laboratory for the elementary classes in zoology and botany. The latter laboratory is arranged for twenty-four wall tables with window in front of each table.

On the second floor the east wing is occupied by a single large laboratory for advanced work in zoology and the west wing by a similar laboratory for advanced work in botany. Each of these rooms accommodates twenty workers and is lit on three sides with twenty windows. The main building on this floor includes private work rooms for the professors of zoology and botany, two store rooms, and a library. On the third floor of the main body is a photographic studio with windows on the north side extending to the floor, and with skylights. In the basement are a fire proof incubator room,

a room for micro-photography with adjoining dark room, janitor's shop, and rooms for the storage of heavy supplies. The wings in the basement are designed for the keeping of live animals and plants for experimental work in botany and zoology. The building is provided with electric lights and is heated by hot water.

THE GEOLOGICAL LABORATORY AND MUSEUM

COLLIER CORB, A. M., *DIRECTOR and Professor of Geology and Mineralogy.*

JOSEPH HYDE PRATT, Ph. D., *State Geologist and Professor of Economic Geology.*

JOHN ELIPHALET SMITH, M. S., *Instructor in Geology.*

ELDRED OSCAR RANDOLPH, A. B., *Assistant in Geology.*

The Geological Laboratory occupies the first floor of the New East building. In addition to a lecture room with a seating capacity of about fifty, there is a large laboratory supplied with working collections of minerals, rocks, and fossils, and with photographs, maps, and models illustrating geological structure. The laboratory is furnished with three petrographical microscopes, with two microscopes for soil study, and with apparatus for the slicing and polishing of rocks. Microscopic slides have been made of most of the specimens from North Carolina; the department has, also, sections of the typical European rocks. Sections of the rocks around Chapel Hill, and the igneous rocks of the Boston Basin, made by the late Hunter Lee Harris, of the class of 1889, were given to the geological department. There is a room for photographic work.

The University possesses a collection of more than two thousand specimens of building stones, coal, and various products illustrating the economic geology of the State. These are arranged in an exhibition room of six hundred and fifty square feet of floor space. Here also are kept the sections taken with a diamond drill in the coal regions of Pennsylvania, in the region around King's Mountain, where the Summer School of Geology held its sessions, in the Dan River coal fields, and in the Triassic Rocks at Durham, N. C. A complete set of the ores of the precious metals found along the line of the Atchison, Topeka, and Santa Fe Railroad is included in the collec-

tion. Valuable additions have been made to the collection of fossils also, affording increased opportunity for laboratory work in historical geology and paleontology. A small collection of tertiary type fossils from Florida, the gift of Mr. Joseph Wilcox, of Philadelphia, is the most recent addition to the paleontological collection. The collection illustrating economic geology has been largely increased by the addition of many specimens from the mining regions of Northern Ontario. Stereograph and lantern slides illustrating geological phenomena in all parts of the world and lantern slides showing mining methods in all the great mining regions are in constant use.

The department library, which occupies a room adjoining the exhibition room, is supplied with State and United States Reports, the papers of working geologists, the best works upon Geology, and scientific periodicals.

UNIVERSITY ORGANIZATIONS

THE DIALECTIC AND PHILANTHROPIC LITERARY SOCIETIES

The Dialectic and Philanthropic Literary Societies were organized in 1795, the year of the opening of the University. Their existence has been inseparably linked with that of the University, and they have shown remarkable power in developing character as well as in training the intellect. They offer facilities for practice in debate, oratory, declamation, and essay writing; and their members become practically familiar with parliamentary law and usage.

Each society owns a large, handsomely furnished hall, the walls of which are hung with oil portraits of illustrious members. Meetings are held by each society every Saturday evening during the college year, admission being confined to members. Public contests in debate between the two societies are conducted twice a year, and in addition to these, there is a system of intercollegiate debates. On Monday evening before Commencement the Inter-Society banquet is held, after which each society has its annual reunion. On Tuesday evening preceding Commencement day four representatives elected from the two societies have a public competition in debate, and a prize is awarded to the successful competitors.

By immemorial custom, students from the eastern half of the State usually join the Philanthropic Society, while those from the western half join the Dialectic Society. Although membership in the societies is entirely optional, yet it is earnestly recommended by the faculty as furnishing unusual opportunities not only for literary culture, but also for the development of self control and the power to persuade and control others.

ELISHA MITCHELL SCIENTIFIC SOCIETY

PARKER HAYWARD DAGGETT, S. B., *President.*

JAMES MUNSIE BELL, Ph. D., *Vice-President.*

*FRANCIS PRESTON VENABLE, Ph. D., D. Sc., LL. D., *Permanent Secretary and Treasurer.*

WILLIAM WALTER RANKIN, A. M., *Recording Secretary.*

The Elisha Mitchell Scientific Society holds monthly meetings during the college year for the discussion of scientific subjects. A Journal, which is the official organ of the North Carolina Academy of Science, is issued quarterly. The object of the Society is to encourage scientific research and to record such matters as pertain to the natural history of the State. The membership is at present restricted to the faculty and students of the University, and members of the staff of the Geological Survey.

At the monthly meetings, which are ordinarily held on the second Tuesday of each month, excellent opportunities are afforded the students to get beyond the ordinary routine of the class room by hearing, reading, and discussing papers on scientific subjects.

The Journal is in a measure a bulletin of the scientific laboratories of the University, and contains many articles written by research students. It is now in the twenty-seventh year. The volumes already issued contain twenty-five hundred pages. By the exchange of the Journal with more than three hundred scientific journals and periodicals, over ten thousand books and pamphlets have been collected, all of which are arranged in the University Library.

THE NORTH CAROLINA HISTORICAL SOCIETY

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *President.*

HENRY MCGILBERT WAGSTAFF, Ph. D., *Vice-President.*

CLAUDE ALFRED BOSEMAN, *Secretary.*

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *Permanent Secretary.*

The North Carolina Historical Society was founded in 1833 by Governor David L. Swain. When Governor Swain became President of the University, the Society was moved from

* Absent on leave 1913-1914.

Raleigh to Chapel Hill. Under his leadership it became the centre of historical work in the State and the medium of many notable contributions to the history of the State. On March 22, 1875, through the activity of Kemp Plummer Battle, LL. D., the Society was chartered by an act of the General Assembly. The purpose of the Society is to collect, classify, and publish material illustrative of the history of the State. The Society possesses a valuable collection of books, pamphlets, manuscripts, newspaper files, coins, and other subjects of historic interest. The educational aim of the Society is to create a love for historical study and to give training in scientific methods of historical investigation. To this end meetings are held monthly in the History lecture room, at which papers, based on original research, are read and discussed. At present the Society is devoting its entire attention to the study of county history and to the collection of material bearing upon that subject. All members of the University are eligible for membership.

THE PHILOLOGICAL CLUB

GEORGE HOWE, Ph. D., *President*.

ORESTES PEARLE RHYNE, Ph. D., *Vice-President*.

EUGENE FRED PARKER, A. M., *Secretary*.

LOUIS ROUND WILSON, Ph. D., *Permanent Secretary and Treasurer*.

The Philological Club meets on the third Tuesday evening of each month during the college year. Its membership consists of the instructors and advanced students in the language departments of the University. The object of the Club is to stimulate original investigation in philology and to afford an opportunity for the interchange of views on subjects relating to such work. At each meeting papers are read and discussed. The Club publishes a journal of two issues a year whose contents are contributed by the members. All persons interested in the work of the Club are invited to attend its meetings.

DER DEUTSCHE VEREIN

WALTER DALLAM TOY, M. A., *President*.

KENT JAMES BROWN, Ph. D., *Vice-President*.

The Verein was established for the purpose of stimulating interest among the officers and students of the University in German life. Weekly meetings are held throughout the year, at which the German language only is employed. Subjects of general interest pertaining to German literature, history, social life, and politics are informally discussed. An effort is made to provide students of German with an opportunity to perfect their pronunciation and to improve their control of the spoken language. It is part of the purpose of the Verein to arrange from time to time for public lectures in German. All officers and students of the University interested in the study of German are eligible to membership.

LE CERCLE FRANCAIS

WILLIAM MORTON DEY, Ph. D., *President*.

OLIVER TOWLES, Ph. D., *Permanent Secretary*.

Le Cercle Francais holds weekly meetings at which topics of general interest pertaining to French literature, and French life, manners and customs are discussed. The French language is employed exclusively. It is the aim of the club to stimulate interest in the French language, to provide its members with an opportunity to hear idiomatic French spoken, and to use the language with more facility. All officers and students of the University interested in the study of French are eligible to membership.

MUSICAL ASSOCIATION

M. H. MEEKS, *President*.

J. S. CANSLER, *Business Manager*.

H. S. BROCKMAN, *Secretary-Treasurer*.

G. M. SNEATH, *Director*.

The aim of the association is to foster the love of music and to afford opportunity of instruction to those interested in music. The organization consists of an orchestra, a brass band, a mandolin and a glee club, which are representative of the musical talent of the University.

STUDENT GOVERNMENT**The Student Council**

- OSCAR LEACH, *President*, President of the Senior Class.
W. P. FULLER, *Secretary*, President of the Junior Class.
T. C. LINN, JR., President of the Sophomore Class.
W. A. SMITH, President of the Second Year Medical Class.
K. A. KIRBY, President of the Second Year Pharmacy Class.
J. S. COWLES, Representative from the Law Class.
P. WOOLLCOTT, (elected by Council) Representative from the Senior Class.
T. C. BOUSHALL, Representative from the Student Body at Large.

The University Council is the head of the honor system. It is the concrete expression of the moral University, the student instrument of self-government. Its members being elected of the students by the students, it is grounded upon, and gives expression to, student sentiment. The Council is not an organization of policemen, nor is it based upon a system of espionage. When any student is felt by his fellow students to be unworthy to remain in the University, the Council takes cognizance of this feeling. It examines the matter, finds the facts in the case, and decides upon the justice of that feeling. If the student is found guilty of conduct unworthy of a University man, he is requested by the Council to leave the University. For example, if it becomes known among the students that a man has been guilty of cheating upon examination, he is disgraced in the eyes of the University community; and the students without hesitation, through their organ of expression, the Council, demand that he forthwith leave the University. The student sentiment expresses itself in this way not only in case of so flagrant a violation of the honor system as cheating, but also in cases of continued drunkenness, gambling, and such other forms of misconduct. Thus it can be seen that the student body has an effective system of self-government, that the motive power of this self-government is student sentiment, and that the organ of expression of this sentiment is the University Council.

The Greater Council

As a natural stage in the development of student government the Greater Council came into existence. The University Council confines its activities to questions relating to discipline. But there are other problems touching the general welfare that need attention. In response to this evident need the Greater Council was organized in 1912-13. It is composed of the University Council, eight men, and in addition two representatives from each academic class, and one representative each from the Graduate, Law, Medical, and Pharmacy Schools, making in all twenty members. The Greater Council holds stated meetings at which it discusses campus problems and projects plans for constructive work. Constantly there arise questions that seem to be the direct concern of no particular class or organization. To all such general questions the Greater Council turns its attention. It has attempted all sorts of tasks,—from improving social conditions on the campus to undertaking and carrying to successful termination a State-wide interscholastic high school track meet. It has come to be an important part of the system of student government. The Greater Council this year is composed of the following members: Oscar Leach, *ex-officio president*; Philip Woollcott, *secretary*; S. W. Whiting, J. A. Holmes, W. P. Fuller, C. E. Ervin, A. R. Newsom, T. C. Boushall, T. C. Linn, Jr., J. M. Huske, F. W. Norris, Oliver Rand, E. K. Proctor, J. S. Cowles, J. S. Cansler, W. A. Smith, J. G. Pate, K. A. Kirby, J. E. Lytch, and Lowry Axley.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION

JAMES E. HOLMES, *President*.

H. S. WILLIS, *Vice-President*.

J. ALBERT HOLMES, *Treasurer*.

RALPH C. SPENCE, *Secretary*.

FRANK P. GRAHAM, *General Secretary*.

LOUIS R. WILSON, *Advisory Treasurer*.

The University Young Men's Christian Association, with its centrally located House as a meeting place and home for the students; with its work for new students; with its social receptions; with its annually published handbook and directory; with its lyceum course; with its support of eight Sunday schools; with its self-help department; with its semi-weekly

religious meetings; with its ministerial and missionary clubs; with its large enrollment of men in Bible and mission study; the Young Men's Christian Association through these channels is an organized agency for usefulness and an aggressive force for morality in the University life.

However, "the Young Men's Christian Association may not be viewed," says a member of the faculty, "merely as an institution for the conduct of mission work, Bible study and religious meetings. Besides these excellent works which it shares with the churches, it is unique as a democratic student organization wholly given up to solving problems of right living. Its energy, sanity, and devotion have made it the most prominent and efficient organization in the college and the most beneficent influence in the life of the college community."

Bible Study

T. C. BOUSHALL, *Chairman*.

1. Studies in the Life of Christ (Bosworth). Leaders: Shepard Bryan, R. T. Bryan, C. A. Boseman, H. W. Collins, Frank H. Cooper, Walter P. Fuller, Roger McDuffie, J. M. Parker, J. E. Turlington, and J. V. Whitfield.
2. Men of the Old Testament (Willman). Leaders: C. W. Beckwith, J. L. Harrison, R. B. House, S. R. Newman, E. Y. Keesler, D. H. Killeffer, L. H. Ranson, W. F. Taylor, and W. B. Umstead.
3. New Studies in the Acts (Bosworth). Leaders: F. O. Clarkson, J. O. Dysart, G. W. Eutsler, Frank Norris, and P. Woollcott.

Normal Class Leaders: Life of Christ, Rev. W. D. Moss; Men of the Old Testament, Prof. H. W. Chase; New Studies in the Acts, F. P. Graham.

Total enrollment, 308. Daily attendance, 145.

Neighborhood Work

W. P. FULLER, *Chairman*.

Leaders: Clark's Chapel, J. M. Parker, N. Reasoner, and M. B. Fowler; Rankin's Chapel, B. B. McDade, J. I.

Lee, A. L. Tyler, and F. P. Graham; Ephesus, J. F. Jarrell and R. C. Vaughan; Orange Chapel, F. F. Bradshaw and B. F. Auld; Calvander, J. E. Holmes, J. N. Bynum, and H. S. Swain; Mt. Carmel, R. R. Walker, L. V. Scott, and Hugh Hester.

Negro Work

H. S. WILLIS, *Chairman*.

Teachers in the Sunday Schools: J. R. Gentry, R. C. Mitchell, H. S. Willis.

Teachers in the Night School for working boys: B. F. Auld, C. W. Beckwith, Floyd Elsom, Clyde Fore, F. P. Graham, S. B. Lindau, and W. C. Rymer.

Six weeks course in "Negro Life in the South" (Weatherford), led by members of the faculty.

PART SIX

COMMENCEMENT
LIST OF STUDENTS
ALUMNI ASSOCIATIONS
SCHEDULES
INDEX

ONE HUNDRED AND EIGHTEENTH COMMENCEMENT

Sunday, June 1

BACCALAUREATE SERMON

The Reverend E. Y. Mullins, D. D., LL. D.

SERMON BEFORE THE YOUNG MEN'S CHRISTIAN ASSOCIATION

The Reverend Josiah Sibley

Monday, June 2

SENIOR SPEAKERS

John Carroll Busby
Woodfin Grady Harry

Hubert Connor Petteway
Guy Berryman Phillips

Tuesday, June 3

ALUMNI EXERCISES

Reunions of the Classes 1853, 1888, 1893, 1903.

THE ALUMNI ADDRESS

The Right Reverend Robert Strange, D. D.

THE DEBATE BY REPRESENTATIVES FROM THE DIALECTIC AND

PHILANTHROPIC LITERARY SOCIETIES

Dialectic

John Albert Holmes
Felix Litaker Webster

Philanthropic

Elbert Sidney Peel
Seymour Webster Whiting

Wednesday, June 4, Commencement Day

THE COMMENCEMENT ADDRESS
The Hon. Thomas R. Marshall

DEGREES IN COURSE**Bachelors of Arts**

Ernest Hamlin Alderman	Matthew Locke McCorkle
Lowry Axley	Arnold Artemus McKay
James Edgar Bagwell	Albert Rosenthal Marks
Stein Hughes Basnight	Fred Wilson Morrison
Paul Archer Bennett	Thomas Hart Norwood
Margaret Kollock Berry	James Oliver Overcash, Jr.
Samuel Robert Bivens	Virgil Addison Perrett
David Remus Blalock	Hubert Connor Petteway
John Carroll Busby	Walter Raleigh Petteway
Joseph Yongue Caldwell	Guy Berryman Phillips
George Carmichael	William Nicholas Post
George Lunsford Carrington	Thomas Michael Ramseur
James Washington Carter	Edgar Ralph Rankin
Ellis Merton Coulter	Douglas LeTell Rights
Gillam Craig	James Hunt Royster
Fields Lilborn Eules	James Blaine Scarborough
Robert Frederick Gray	Lacy Lee Shamburger
Alvah L. Hamilton	Horace Sisk
Elisha Carter Harris	Peyton McGuire Smith
Woodfin Grady Harry	Marshall Turner Spears
Martin Armstead Hatcher	Walter Stokes, Jr.
Frederick Huffman Higdon	Thomas Edgar Story
Troy Jay Hoover	Robert Strange, Jr.
Robert Obediah Huffman	Harry Murden Stubbs
John Speight Hunter	Rachel Lawrence Summers
Mitchell Ray Ingram	William Smith Tillett
Robert Waldon Isley	Henry Roland Totten
Elisha Wiley Joyner	Jackson Townsend
Robert Campbell Journey	Daniel Joshua Walker
Watson Kasey	Archibald Lee Manning Wiggins
James Clyde Kelly	Isham Roland Williams
Frank Hunter Kennedy	Albert Robert Wilson, Jr.
William Albert Kirksey	George Pickett Wilson
John Hilary Andrew Workman	

Bachelors of Science in Chemical Engineering

Paul Roby Bryan	Victor Aldine Coulter
Carnie Blake Carter	Clarence Ballew Hoke
Leland Brown Rhodes	

Bachelors of Science in Civil Engineering

Swade Emmett Barbour	Jasper Louis Phillips
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Bachelors of Science in Electrical Engineering

John Madison Labberton

John Wesley McIver

Bachelor of Science in Medicine

William Easton Wakeley

Bachelors of Law

Karl Braswell Bailey

Wilson Lee Warlick

Robert Winfred Wall

Thomas Brooks Woody

Graduates in Pharmacy

Charles Lea Cox

Frank Haliburton Lunn

John Edward Murray

Masters of Arts

William Battle Cobb

Thomas Ellwood McMillan

Rufus Carson Cox

Herbert Craig Miller

Price Henderson Gwynn, Jr.

Fred Wilson Morrison

Mitchell Ray Ingram

James Hunt Royster

Lucius Eugene Stacy, Jr.

Thomas Sampson Royster

Masters of Science

James Otto Graham

Burke Haywood Knight

HONORARY DEGREES**Doctors of Laws**

Thomas R. Marshall

Charles Alphonso Smith

MEDALS, PRIZES, AND FELLOWSHIPS*The William Cain Prize in Mathematics:* H. W. Collins.*The Eben Alexander Prize in Greek:* D. L. Rights.*The Worth Prize in Philosophy:* P. H. Gwynn, Jr.*The Early English Text Society Prize:* F. W. Morrison.*The Henry R. Bryan Prize in Law:* T. B. Woody.*Prizes in North Carolina Colonial History:* First, E. H. Alderman;

Second, E. M. Coulter.

The Babbitt Scholarship in Chemistry: H. L. Cox.*The Le Doux Fellowship in Chemistry:* J. T. Dobbins.*Fellowship in Chemistry:* C. B. Carter.*Fellowship in Chemistry:* V. C. Edwards.*Fellowship in Organic Chemistry:* L. B. Rhodes.

The W. J. Bryan Prize in Political Science: T. J. Hoover.

The Ben Smith Preston Cup: J. L. Chambers, Jr.

The Freshman Prize in English: B. F. Auld.

The Bingham Prize: J. A. Holmes.

The Mangum Medal: G. B. Phillips.

Elected to membership in *Phi Beta Kappa Society*, 1913: H. W. Collins, J. S. Cansler, J. L. Chambers, Jr., A. R. Brownson, H. L. Cox, G. V. Strong, F. D. Conroy, E. S. Peel, R. W. Holmes, J. Eldridge, H. C. Long, Jr., R. C. Spence, K. C. Royall, S. W. Whiting.

CERTIFICATES

Botany: W. B. Cobb, H. R. Totten.

Chemical Engineering: P. R. Bryan, C. B. Carter, V. A. Coulter, C. B. Hoke, L. B. Rhodes.

Civil Engineering: S. E. Barbour, J. L. Phillips.

Economics: I. M. Bailey, T. J. Hoover.

Education: G. B. Phillips, H. Sisk, T. E. Story, J. H. A. Workman.

Electrical Engineering: J. M. Labberton, J. W. McIver.

English: E. H. Alderman, L. Axley, E. W. Joyner, F. W. Morrison, G. P. Wilson.

French: M. R. Ingram, G. P. Wilson.

Geology: W. B. Cobb, R. C. Journey.

German: W. A. Kirksey.

Greek: R. O. Huffman, F. W. Morrison.

History: E. M. Coulter, H. C. Petteway, W. R. Petteway.

Latin: W. A. Kirksey.

STUDENTS (1913-1914)

Graduates

- Arnette, John Madison, Durham.
A. B., 1902, Wake Forest College. Philosophy, Greek, History.
Candidate for Ph. D.
- Bailey, Karl Braswell, Elm City.
A. B., 1911, LL. B., 1913. History, Economics, Philosophy. Can-
didate for A. M.
- Bearden, George Steele, Chapel Hill.
Ph. B., 1893, Newberry College. Philosophy.
- Carter, Carnie Blake, Morganton.
S. B., 1913. Chemistry, Geology, Physics. Candidate for S. M.
- Coulter, Victor Aldine, Newton.
S. B., 1913. Chemistry, Physics, Mathematics. Candidate for S. M.
- Daniel, James Manly, Jr., Denton.
A. B., 1912. History, Economics, Philosophy.
- Dobbins, James Talmage, Rusk,
A. B., 1911, A. M., 1912. Chemistry, Geology, Physics. Can-
didate for Ph. D.
- Edwards, Victor Clyde, Chapel Hill.
A. B., 1909. Chemistry, Geology, Physics. Candidate for Ph. D.
- Ferguson, Thomas Wiley, Kendal.
Economics, Philosophy, Education. Candidate for A. B., and A. M.
- George, Wesley Critz, Mt. Airy.
A. B., 1911, A. M., 1912. Zoology. Candidate for Ph. D.
- Glcnn, Robert Craig, Hickory.
A. B., 1907, Lenoir College. History, Economics, English. Can-
didate for A. M.
- Guigou, Stephen Caesar, Valdese.
A. B., 1910, Maryville College. French, Spanish, German.
- Henry, George Kenneth Grant, Chapel Hill.
A. B., 1900, A. M., 1904, Hamilton College. Latin, Greek, French.
Candidate for Ph. D.
- Highsmith, Edwin McKay, New Smyrna, Fla.
Ph. B., 1907. Education, History, Philosophy. Candidate for A. M.
- Jeffries, William Lewis, Edgefield, S. C.
A. B., 1910, A. M., 1912. Chemistry, Geology. Candidate for Ph. D.
- Johnston, Joseph Henry, Chapel Hill.
A. B., 1910. Education, Philosophy, English. Candidate for A. M.
- Lasley, John Wayne, Jr., Burlington.
A. B., 1910, A. M., 1911. Mathematics. Candidate for Ph. D.

- McIver, John Wesley, Sanford.
S. B., 1913. Electrical Engineering, Mathematics, Chemistry. Candidate for S. M.
- McNeill, Loughlin, Burgaw.
B. S., 1908, Davidson College. Philosophy, Economics.
- Orr, James Lawrence, Mars Hill.
A. B., 1912. History, Economics, English. Candidate for A. M.
- Pearson, Leslie Winston, Dudley.
A. B., 1909, Guilford College. History, Education, Economics. Candidate for A. M.
- Perry, Edwin Jerry, Wilson.
Economics, Philosophy, English. Candidate for A. B., and A. M.
- Price, Thomas Moore, Spray.
A. B., 1912. Mathematics, Geology, Physics.
- Randolph, Eldred Oscar, Charlotte.
A. B., 1908. Geology, Botany, Economics. Candidate for A. M.
- Rankin, Edgar Ralph, Gastonia.
A. B., 1913. Education, Economics, Philosophy. Candidate for A. M.
- Rankin, William Walter, Jr., Chapel Hill.
B. E., 1904. N. C. College of Agriculture and the Mechanic Arts, A. M., 1912. Mathematics. Candidate for Ph. D.
- Rhodes, Leland Brown, Sylva.
S. B., 1913. Chemistry, Geology, English. Candidate for S. M.
- Royall, Kenneth Claiborne, Goldsboro.
German, History, Mathematics. Candidate for A. B., and A. M.
- Rudisill, William Augustus, Henry River.
S. B., 1911. Chemistry, Physics, Geology. Candidate for S. M.
- Scarborough, James Blaine, Mt. Gilead.
A. B., 1913. Mathematics, Physics. Candidate for A. M.
- Seckinger, Daniel Lamont, Rincon, Ga.
A. B., 1913, Lenoir College. English, German, Philosophy. Candidate for A. M.
- Shuford, Richard Harvey, Hickory.
A. B., 1913, Lenoir College. Economics, History, Philosophy. Candidate for A. M.
- Sneath, George Mark, Chapel Hill.
A. B., 1907, A. M., 1910, Yale University. English, Latin, French. Candidate for Ph. D.
- Spears, Marshall Turner, Lillington.
A. B., 1913. Philosophy, Economics, English. Candidate for A. M.
- Starr, Homer Worthington, Chapel Hill.
A. B., 1900, Harvard University, A. M., 1901, University of the South. English, History, Economics. Candidate for Ph. D.
- Steadman, John Marcellus, Jr., Spartanburg, S. C.
A. B., 1909, A. M., 1912, Wofford College. English, German, French. Candidate for Ph. D.

- Taylor, Henry Edward, Pride, Texas.
A. B., 1913, East Texas Normal College. Education, Economics,
English. Candidate for A. M.
- Totten, Henry Roland, Yadkin College.
A. B., 1913. Botany, Zoology, Geology. Candidate for A. M.
- Townsend, Jackson, Marietta.
A. B., 1913. Chemistry, Physics, Geology. Candidate for A. M.
- Wicker, Walton Staley, Elon College.
A. B., 1913, Elon College. Mathematics, Geology.
- Williams, Luther Carter, Carrboro.
A. B., 1913, Wake Forest College, Economics, History, Philosophy.
Candidate for A. M.
- Woodall, Charles Lawrence, Raleigh.
A. B., 1913, Wake Forest College. Physics, Mathematics, Econom-
ics.

Senior Class

- | | |
|-------------------------------|---------------------------------|
| Abernethy, Lonnie Lee, | Science, Charlotte. |
| Andrews, Troy Monroe, | Arts, Chapel Hill. |
| Angel, Lewis, | Arts, Franklin. |
| Aycock, Benjamin Franklin, | Arts, Fremont. |
| Bailey, Isaac Mayo, | Arts, Smithfield. |
| Blalolock, M. E., Jr., | Science, Norwood. |
| Brownson, Allyn Raymond, | Arts, Asheville. |
| Cansler, John Scott, | Arts, Charlotte. |
| Carlton, David Hill, | Arts, Kernersville. |
| Chambers, Joseph Lenoir, Jr., | Arts, Charlotte. |
| Cobb, Collier, Jr., | Arts, Chapel Hill. |
| Collins, Hubert Walter, | Science, Holly Springs. |
| Conroy, Frank Davies, | Arts, Cullowhee. |
| Cox, Henry Leon, | Science, Cullowhee. |
| Credle, Willie Frontis, | Arts, Swan Quarter. |
| Darden, Paul Clifford, | Arts, Fremont. |
| Dunnagan, Macon Rush, | Arts, Yadkinville. |
| Eldridge, James, | Arts, Dunn. |
| Ellington, Kenneth Raynor, | Law, Clayton. |
| Feezor, John Gilmer, | Arts, Silver Hill. |
| Ferguson, Thomas Wiley, | Arts, Kendal. |
| Flume, Arthur James, | Science, Palatine Bridge, N. Y. |
| Gentry, John Robert, | Arts, Waynesville. |
| Green, Charles Benjamin, | Science, Kittrell. |
| Grimsley, Harry Barnette, | Arts, Greensboro. |
| Hart, Meade, | Arts, Mooresville. |
| Hatcher, John Thomas, | Arts, Rose Hill. |
| Holmes, John Albert, | Arts, Graham. |
| Holmes, Ralph Wendell, | Arts, Graham. |

Hughes, Clinton Kelly,	Arts,	Asheville.
James, Albert Warren,	Arts,	Laurinburg.
Johnston, Lemuel Roy,	Arts,	Haw River.
Jones, Troy Isaiah,	Arts,	Helton.
Kelly, Donald George,	Arts,	Clarkton.
Knowles, Daniel Lamont,	Arts,	Mt. Olive.
Lasley, Robert Law,	Arts,	Wentworth.
Leach, Oscar,	Arts,	Raeford.
Lee, James Grover,	Arts,	Roxboro.
Lee, Joseph Ira,	Arts,	Four Oaks.
Long, Henry Cyrus, Jr.,	Arts,	Charlotte.
Lord, William Campbell,	Arts,	Wilmington.
Love, James Frank,	Arts,	Statesville.
McIntosh, John William,	Arts,	Denver.
McKnight, Roy Bowman,	Arts,	Charlotte.
Oates, Malcolm Norval,	Science,	Charlotte.
Owen, Frank Redding,	Arts,	Yadkin College.
Parker, Walter Rea,	Arts,	Goldsboro.
Peel, Elbert Sidney,	Arts,	Williamston.
Perry, Edwin Jerry,	Arts,	Wilson.
Pitt, William Franklin,	Arts,	Macclesfield.
Price, Lemuel Alexander,	Arts,	Unionville.
Pritchett, James Turner,	Arts,	Lenoir.
Puett, Anna Mariah,	Arts,	Dallas.
A. B., 1913, Chicora College.		
Pugh, Jesse Forbes,	Arts,	Old Trap.
Ranson, Lucius Henry,	Arts,	Huntersville.
Reed, Ralph Alton,	Arts,	Winston-Salem.
Robinson, Melvin,	Arts,	Atlantic.
Royall, Kenneth Claiborne,	Arts,	Goldsboro.
Scott, Luther Vernon,	Arts,	Siloam.
Sloan, Harold Thomas,	Arts,	Franklin.
Spence, Ralph Case,	Arts,	Kipling.
Strayhorn, Isaac Richerson,	Arts,	Durham.
Strong, George Vaughan,	Arts,	Raleigh.
Struthers, James Arthur,	Science,	Grist.
Taylor, Carl Duffy,	Science,	Newbern.
Thompson, William Reid,	Arts,	Teer.
Walker, John Alfred,	Science,	Germanton.
Webster, Felix Litaker,	Arts,	Wilkesboro.
Whitaker, William Pell, Jr.,	Arts,	Wilson.
Whiting, Seymour Webster,	Arts,	Raleigh.
Willis, Henry Stuart Kendall,	Arts,	High Point.

Junior Class

Allen, Reynold Tatum,	Arts,	Kinston.
Bailey, Kenneth Hubert,	Arts,	Wakefield.
Bell, Daniel Long,	Arts,	Graham.
Boseman, Claude Alfred,	Arts,	Enfield.
Blount, Ferrell Leighton,	Arts,	Bethel.
Boushall, Thomas Callendine,	Arts,	Raleigh.
Brinkley, Robert Lloyd,	Arts,	Elm City.
Bryan, Joseph Shepard,	Arts,	Scott's Hill.
Bryan, Robert Thomas,	Arts,	Chapel Hill.
Campbell, Edgar Thomas,	Arts,	Jessama.
Carr, Austin Heaton,	Arts,	Durham.
Clarke, Wilfong Waldron,	Arts,	Morganton.
Coats, Robert Floyd,	Arts,	Angier.
Conrad, Edwin Fuller,	Arts,	Winston-Salem.
Conrad, Howard Clarence,	Arts,	Pfafftown.
Cummings, Alfred Ewing,	Arts,	Winston-Salem.
Davis, Martin Jones,	Arts,	Warrenton.
Day, John Tucker,	Arts,	Walkertown.
Drew, George Frank,	Arts,	Live Oak, Fla.
Edgerton, Earlie Dock, Jr.,	Arts,	Fremont.
Edgerton, Gurney Edverett,	Arts,	Fremont.
Ervin, Carl Edgar,	Science,	Troutman.
Eutsler, George Willard,	Arts,	Greensboro.
Field, Bascom Lee,	Science,	Greensboro.
Fitzgerald, Robert Greeson,	Arts,	Whitsett.
Forney, Adger Carter,	Science,	Greensboro.
Foust, Henry Price,	Arts,	Greensboro.
Fuller, Walter Pliny,	Arts,	Bradentown, Fla.
Gaither, Long,	Arts,	Statesville.
Gunter, Laughton Bruce,	Arts,	Holly Springs.
Harden, Graham,	Arts,	Burlington.
Harding, William Renney,	Arts,	Yadkinville.
Harper, Allen Bostic,	Arts,	Chapel Hill.
Harrell, William Henry, Jr.,	Science,	Williamston.
Harris, Donald Ryan,	Arts,	Arden.
Hill, Thomas Fuller,	Arts,	Durham.
Holder, Brantson Beeson,	Arts,	Walkertown.
Holmes, James Eugene,	Arts,	Graham.
Holton, George Ricks,	Arts,	Winston-Salem.
Huske, William Oliver,	Science,	Fayetteville.
Johnston, Frederick Swain, Jr.,	Arts,	Franklin.
Keesler, Edward Yates,	Arts,	Charlotte.
Kerr, William Doub,	Arts,	Greensboro.

Killefer, David Herbert,	Science, Bradentown, Fla.
Kornegay, Wade,	Arts, Chapel Hill.
Lambert, Gabriel deLono,	Arts, High Point.
Lambert, Henry Dionysus,	Arts, Angier.
Lilly, Edmund Jones, Jr.,	Science, Fayetteville.
Lindau, Sigmund Baach,	Science, Greensboro.
Long, Albert Anderson,	Arts, Farmington.
McCall, Frederick Bays,	Arts, Charlotte.
Manning, Frederick Cain,	Arts, Durham.
Marshburn, Owen Meredith,	Arts, Eagle Rock.
Martin, Grover Adlai,	Arts, East Bend.
Maxwell, Baldwin,	Arts, Charlotte.
Mebane, George Allen,	Arts, Spray.
Millender, Charles White,	Arts, Asheville.
Nance, Ophir Carmal,	Arts, High Point.
Newsom, Albert Ray,	Arts, Marshville.
Parker, John Lloyd,	Science, Ahoskie.
Parker, Roscar Edward,	Arts, Selma.
Paty, B. F.,	Arts, Tullahoma, Tenn.
Pendergraph, Henry Austin,	Arts, Durham.
Pickett, Oscar Asa,	Science, Durham.
Prevatt, Joseph Robert,	Arts, Lumberton.
Price, James Valentine, Jr.,	Arts, Spray.
Pritchard, William Nelson, Jr.,	Science, Chapel Hill.
Pruden, William Dossey, Jr.,	Arts, Edenton.
Reid, William Kirkpatrick,	Arts, Gastonia.
Rowe, Joseph Vance,	Arts, Aurora.
Sahag, Leon Maroot,	Science, Teheran, Persia.
Scott, Samuel Floyd,	Arts, Haw River.
Sears, Benjamin Belver,	Science, Como.
Sloan, Charles Austin,	Arts, Garland.
Smith, Clairborne Thweatt,	Arts, Scotland Neck.
Stanford, William Raney,	Arts, Teer.
Taylor, William Raymond,	Arts, Louisburg.
Thompson, James Alfred,	Arts, Haw River.
Thorp, William Lewis,	Arts, Rocky Mount.
Townsend, William Bartel,	Arts, Red Springs.
Weatherly, Albert Thomas,	Arts, Gorman.
Weaver, James Ralph,	Arts, Chapel Hill.
Weeks, Willie Person Mangum,	Arts, Washington, D. C.
White, Paul Linwood,	Arts, Scotland Neck.
Whitfield, James Vivian,	Arts, Wallace.
Wilkins, John Allen,	Arts, Draughton.
Woltz, Claud Bernard,	Arts, Dobson.
Woollcott, Phillip,	Arts, Salisbury.

Sophomore Class

*Abernethy, Richard Blythe, Jr.,	Arts,	Charlotte.
Anderson, Andrew Vance,	Arts,	Eagle Rock.
Auld, Benjamin Franklin,	Arts,	Baltimore, Md.
Barnes, Rudolph,	Arts,	Clayton.
Black, Hoke Barrymore,	Arts,	Greenville, S. C.
Blaine, James Gornaro,	Arts,	Franklin.
Blalock, Hubert Morse,	Arts,	Raleigh.
Blue, Luther Avon, Jr.,	Arts,	Wilmington.
Bradshaw, Francis Foster,	Arts,	Hillsboro.
Brooks, Robert Plato,	Science,	Woodsdale.
Bryan, Albert Othel,	Science,	Battleboro.
Castelloe, Allen Thurman,	Arts,	Aulander.
Clark, Ralph Vivian,	Arts,	Clarkton.
Clarkson, Francis Osborne,	Arts,	Charlotte.
Cobb, William Borden,	Arts,	Goldsboro.
Combs, Howard Johnson,	Science,	Columbia.
Cone, Herman,	Arts,	Greensboro.
Cook, Robert Edward Lee, Jr.,	Arts,	Tarboro.
Cooper, Frank Hodges,	Arts,	Washington.
Cowan, James Gerald,	Science,	Asheville.
Cox, James Marmaduke,	Arts,	Hertford.
Currie, Edwin Holt,	Arts,	Raeford.
Darden, Douglas Beaman,	Arts,	Fremont.
Deaton, Fred Hyams,	Arts,	Statesville.
Devereux, Robert Eddens,	Arts,	Spencer.
Dickson, James Gillespie,	Arts,	Raeford.
Dobbins, Charles Nelson,	Arts,	Yadkinville.
Dysart, John Overton,	Arts,	Lenoir.
Egerton, Graham Burwell,	Arts,	Louisburg.
Edwards, Lee Henry,	Arts,	Holly Springs.
Elliott, Aubrey McCoy,	Arts,	Columbia, S. C.
English, Charles Eugene,	Science,	Asheville.
Epps, Preston Herschel,	Arts,	Durham.
Farmer, Leslie James,	Arts,	Wilson.
Fearrington, Amos Gregson,	Science,	Edenton.
Fore, Clyde Lathrop	Science,	Charlotte.
Fulcher, Manly,	Arts,	Atlantic.
Goforth, Osborne LeRoy,	Arts,	Durham.
Hall, Lucius Coleman,	Science,	Webster.
Hancock, Franklin Wills, Jr.,	Arts,	Oxford.
Hardison, Herman Henry,	Arts,	Wadesboro.
Hardison, James Archibald, Jr.,	Arts,	Wadesboro.
Harper, William Troy,	Science,	Chapel Hill.

* Died Dec. 1913.

Harrison, James Leftwich,	Arts,	Raleigh.
Hester, Hugh Bryan,	Arts,	Hester.
Hogan, Ernest Glen,	Arts,	Chapel Hill
Holland, Curtis Avent,	Arts,	Greensboro.
Holt, Walter Lawrence, Jr.,	Science,	Fayetteville.
Homewood, Roy McRae,	Science,	Burlington.
Hoover, William John,	Arts,	Bell Buckle, Tenn.
House, Robert Burton,	Arts,	Thelma.
Hudson, Hinton Gardner,	Arts,	Smithfield.
Hunter, David Wills,	Arts,	Greensboro.
Hunter, Wade Russell,	Arts,	Alexander.
Huske, John Manning,	Arts,	Fayetteville.
Huske, Joseph Strange,	Arts,	Fayetteville.
Jarrell, John Franklin,	Arts,	Chapel Hill, Tenn.
Jernigan, Herman,	Arts,	Benson.
Johnston, Charles Louis,	Arts,	Knoxville, Tenn.
Johnson, Herschel Vespasian,	Arts,	Charlotte.
Jones, John Haywood,	Science,	Newbern.
Jones, Thomas Atkinson,	Arts,	Asheville.
Joyner, William Henry,	Science,	Princeton.
Kent, John Archelaus,	Arts,	Lenoir.
Lassiter, James Horace,	Arts,	Rich Square.
Lewis, McDaniel,	Arts,	Kinston.
Linn, Thomas Calvin, Jr.,	Arts,	Salisbury.
Long, Giles Mebane,	Arts,	Charlotte.
Loughran, George Barnes,	Arts,	Asheville.
Lupton, Edward Willis,	Science,	Swan Quarter.
McCurry, John Dob,	Arts,	Marion.
Marsh, Luther Grier,	Arts,	Marshville.
Merritt, Oscar von Kochtitzky,	Arts,	Mt. Airy.
Meckel, George Curtis,	Arts,	Anderson, Ind.
Miller, Harry,	Arts,	Stony Point.
Mitchell, Roy Colonel,	Science,	Mt. Airy.
Moore, Julian Alison,	Science,	Wilmington.
Moore, James Roy,	Arts,	Lenoir.
Morris, Carlyle,	Arts,	Fremont.
Norris, Frank Wisconsin,	Arts,	Jacksonville, Fla.
Norwood, Evan Wilkins,	Arts,	Goldsboro.
Page, Robert Newton, Jr.,	Arts,	Biscoe.
Parker, John Merrel,	Arts,	Bradentown, Fla.
Patterson, Hazel,	Science,	Burlington.
Pell, William Edward,	Arts,	Raleigh.
Pike, Samuel Clark,	Arts,	Liberty.
Pitt, William Barney,	Arts,	Charlotte.
Reid, Edward Solomon, Jr.,	Science,	Charlotte.

Reynor, Daniel,	Science,	Raleigh.
Rhodes, William Henry, Jr.,	Arts,	Sylva.
Robinson, Clarence,	Arts,	Atlantic.
Robinson, Marius Emmett, Jr.,	Arts,	Goldsboro.
Royall, George Clairborne, Jr.,	Arts,	Goldsboro.
Royster, Beverley Sampson, Jr.,	Arts,	Oxford.
Rymer, William Cecil,	Arts,	Hendersonville.
Shapiro, Moses,	Arts,	Winston-Salem.
Shealy, Willie Brodie,	Science,	White Rock, S. C.
Shrago, Jacob Philip,	Arts,	Goldsboro.
Siddall, Roger Shore,	Arts,	Sumter, S. C.
Smith, Cleveland Lafayette,	Arts,	Indian Trail.
Smith, George Wallace,	Science,	Wilmington.
Stedman, John Porterfield, Jr.,	Science,	Oxford.
Sugg, Eugene Sifax,	Science,	Chapel Hill.
Tayloe, David Thomas, Jr.,	Science,	Washington.
Taylor, James Alexander,	Arts,	Oxford.
Temko, Herman Burton,	Science,	Greensboro.
Thompson, Earle Hinson,	Arts,	Red Springs.
Thorp, Adam Tredwell,	Science,	Rocky Mount.
Turner, Henry Clay,	Arts,	Norwood.
Umstead, William Bradley,	Arts,	Bahama.
Vaughn, Robert Candler,	Arts,	Winston-Salem.
Veasey, Elbert Lambert,	Arts,	Stem.
Walke, William Capehart,	Science,	Avoca.
Walker, Charles Ernest,	Arts,	Morganton.
Welch, Robert Henry Winbourne, Jr.,	Arts,	Hertford.
Whitaker, Zack Lanier,	Arts,	Oak Ridge.
Williams, Marshall McDairmid, Jr.,	Science,	Faison.
Wood, Fred Philips,	Arts,	Edenton.
Wright, Robert Hazelhurst, Jr.,	Arts,	Nashville, Tenn.
Yarborough, Robert Samuel,	Arts,	Lexington.
Zollicoffer, Allen Caulincourt,	Arts,	Weldon.

Freshman Class

Adams, Walter Jarvis,	Arts,	Holly Springs.
Alderman, Harriss Percy,	Arts,	Wilmington.
Allen, Herbert Edwin,	Science,	Asheville.
Allen, William Reynolds, Jr.,	Arts,	Goldsboro.
Allred, Frank Ewing,	Science,	Aberdeen.
Andrews, Claud Fleming,	Arts,	High Point.
Andrews, Ezra Preston,	Arts,	Charlotte.
Andrews, Ralph Preston,	Science,	Chapel Hill.
Aronson, Arthur Aaron,	Arts,	Raleigh.
Austin, William Bryant,	Arts,	Burnthill.

Bacon, Edward Onslow,	Science, Newton.
Baggett, Venon,	Arts, Salemburg.
Bailey, Herbert Victor,	Arts, Neuse.
Bain, Charles Wortley,	Arts, Chapel Hill.
Baity, Herman Glenn,	Arts, Harmony.
Barber, Lawrence Corbin,	Science, Asheville.
Barden, Thomas Atlas,	Arts, Burgaw.
Barnard, James Carl,	Arts, Franklin.
Barnes, Troy Thomas,	Arts, Lucama.
Barnes, William Braddy,	Arts, Lucama.
Bell, Clifton Linwood,	Arts, Swan Quarter.
Berry, Benjamin Carroll,	Arts, Hertford.
Bethune, Richard Frederick,	Arts, St. Pauls.
Booth, Ernest Spurgeon,	Arts, Durham.
Boshamer, Cary Carlyle,	Arts, Statesville.
Bourne, Francis Churchill,	Arts, Asheville.
Brady, David,	Arts, Durham.
Brinkley, Edgar Burwell,	Arts, Elm City.
Bullock, Duncan Douglas,	Arts, Rowland.
Burden, Henry Vernon,	Science, Aulander.
Burnett, Charles Earl,	Arts, Wilmington.
Burnett, Robert Shepard,	Arts, Wilmington.
Byrd, Charles Brown,	Arts, Live Oak, Fla.
Campbell, Milton Clyde,	Arts, Taylorsville.
Capehart, William Jonathan,	Arts, Roxobel.
Capps, James Arthur,	Arts, Bessemer City.
Carmichael, Whitfield Chapman,	Arts, Asheville.
Carr, Leo,	Arts, Teacheya.
Carter, David Vance,	Arts, Liberty.
Clark, LeRoy,	Arts, Wakefield.
Clement, Louis Heyl, Jr.,	Arts, Salisbury.
Cochran, Walter Bingam,	Arts, Harrisburg.
Coleman, James Millar,	Science, Asheville.
Combs, Alvah Haff,	Arts, Columbia.
Cooke, Charles Kearney,	Arts, Louisburg.
Cowell, Horace Baxter,	Science, Washington.
Cox, Adlai Roy,	Arts, Pisgah.
Craig, George Winston,	Arts, Raleigh.
Crawford, Farrell Moffatt,	Arts, Cornelia, Ga.
Crawford, Karl Brooks,	Arts, Sugar Hill.
Crowell, Gordon Bryan,	Arts, Lincolnton.
Dail, Ernest James,	Arts, Kenansville.
Dail, George Robert,	Arts, Kenansville.
Dale, Thomas Richard,	Arts, Morganton.
Dalton, Wilson Bitting,	Arts, Winston-Salem.

Daniels, Charles Cleaves,	Arts,	Wilson.
Daniels, Leland Macky,	Arts,	Oriental.
Davis, Robert Cowan,	Science,	Wilmington.
Davis, Thomas Paul,	Arts,	Burlington.
DeLaney, Charles Oliver,	Arts,	Weddington.
Dobbin, Edgar Alexandria,	Arts,	Ledgerwood.
Drew, Herbert Jackson,	Arts,	Live Oak, Fla.
Eagle, Daniel Eugene,	Arts,	Statesville.
Edwards, Robert Lee,	Science,	Guilford.
Eldridge, John Grady,	Arts,	Beasley.
Elias, Miguel Grausman,	Science,	Raleigh.
Elsom, Floyd Howard,	Science,	Hendersonville.
English, Clarence Montraville,	Arts,	Asheville.
Entwistle, William Harry,	Arts,	Rockingham.
Ervin, Samuel James, Jr.,	Arts,	Morganton.
Ferguson, Clyde Vestal,	Arts,	Teer.
Fleming, Charles Mortimer,	Science,	Wilson.
Folger, Carl Louis,	Arts,	Dobson.
Fowler, Marion Butler,	Arts,	East Durham.
Funderburk, Kemp,	Arts,	Monroe.
Gardner, Leslie Paul,	Arts,	Goldsboro.
Ginn, Russell Leonard,	Arts,	Goldsboro.
Glenn, John Melvin,	Arts,	Marion.
Goode, Henry Grady,	Arts,	Connelly Springs.
Goodson, Robert Reid,	Science,	Salisbury.
Graham, Burton McKinnon,	Science,	Rowland.
Gregory, William Herbert,	Arts,	Stovall.
Groome, James Irvin,	Arts,	Greensboro.
Groome, Paul Ballinger,	Arts,	Greensboro.
Gryder, Coffee Harlan,	Arts,	Taylorsville.
Gwaltney, Leroy Parks, Jr.,	Arts,	Hiddenite.
Hale, Joseph Watkins,	Science,	Louisburg.
Hamilton, Ernest Stokes,	Arts,	Unionville.
Hardison, Joseph Hammond,	Arts,	Fayetteville.
Harper, Henry Green, Jr.,	Arts,	Charlotte.
Harris, Charles Spurgeon,	Arts,	Sulphur Springs.
Harris, Julian Earle,	Science,	Henderson.
Harris, Joseph Johnson,	Arts,	Louisburg.
Harriss, Robert Burton,	Arts,	Greensboro.
Hatcher, Matthew James,	Arts,	Mt. Olive.
Hawthorne, Joseph,	Arts,	Concord.
Higdon, Frank McKinley,	Science,	Higdonville.
Higgins, Charles William,	Science,	Greensboro.
Hill, Dudley Brown,	Arts,	Warsaw.
Hill, Edward Ashton,	Science,	Winston-Salem.

Hill, John Bright,	Arts,	Warsaw.
Hobbs, Samuel Huntington, Jr.,	Arts,	Clinton.
Hobgood, James Raymond,	Science,	Mapleville.
Hodgin, Samuel Clarence,	Arts,	Randleman.
Hoffman, Garland Skiles,	Science,	High Point.
Holbrook, John McCraven,	Arts,	Huntersville.
Holloway, Kenneth,	Arts,	Raleigh.
Hood, Richard Thornton,	Science,	Kinston.
Hoover, James Earl,	Science,	High Point.
Horsfield, Basil Tourneur,	Science,	Oxford.
Howell, Willie Frederick,	Arts,	Goldsboro.
Huff, Herbert Henry,	Arts,	Soudan, Va.
Hunt, Edward Outlaw,	Arts,	Oxford.
Hunter, Harry Grimmett,	Arts,	Hendersonville.
Hyatt, Buell Benners,	Arts,	Waynesville.
Hyatt, Carl Britt,	Arts,	Burnsville.
Idol, Victor Hugo,	Science,	High Point.
Isley, Roy Bynum,	Science,	Burlington.
Jackson, Webster Nimms,	Arts,	Jacksonville.
Johnson, Henry McNair,	Arts,	Burgaw.
Johnson, John Gray,	Science,	Lynchburg, Va.
Johnston, James Martin,	Arts,	Chapel Hill.
Joines, Aaron Oscar,	Arts,	Stratford.
Jones, Engene Patterson,	Arts,	Lenoir.
Jones, Jesse Weimar,	Arts,	Franklin.
Jones, Zebulon Baird Vance,	Arts,	Swan Quarter.
Jordan, Francis Cameron,	Arts,	Greensboro.
Joyner, Edward Grey,	Arts,	Littleton.
Kendall, Everett Allen,	Arts,	Ashboro.
Kendrick, Frank Erwin,	Arts,	Dillon, S. C.
Kernodle, John David, Jr.,	Science,	Graham.
King, James Edwin,	Arts,	Pelham.
Kirk, William Wilson,	Arts,	Jacksonville, Fla.
Kirksey, James Jackson,	Arts,	Morganton.
Klingman, Edwin Carlyle,	Science,	Greensboro.
Koons, Ralph Ray,	Science,	Chadbourn.
Lamb, John Ferebee,	Science,	Elizabeth City.
Lamm, Allison Clifford,	Arts,	Lucama.
Leggett, Chauncey Hoke,	Science,	Hobgood.
Lewis, Marion Harvey,	Arts,	Faison.
Lindau, Alfred Milton,	Arts,	Greensboro.
Loftin, Donald Dean,	Arts,	Trenton.
Love, James Franklin,	Arts,	Lincolnton.
Lynch, Thomas Marvin,	Arts,	Chapel Hill.
McCurry, Charles Handy,	Arts,	Day Book.

McGee, Ward Vann,	Arts, Leicester.
McIver, Duncan Evander, Jr.,	Arts, Sanford.
Mackie, Ernest Loyd,	Arts, Yadkinville.
McPherson, Paul Vestal,	Arts, Liberty.
Mann, Weaver George,	Arts, Prentiss.
Markham, Blackwell,	Arts, Durham.
Marlowe, William Anderson,	Arts, Wilson.
Martin, Stanley Robert,	Science, Salisbury.
Mason, Dennis, Jr.,	Arts, Atlantic.
Mathews, Murray Hilliard,	Arts, Florala, Ala.
Matthews, Sanford Eugene,	Arts, Siloam.
Maxwell, Justin Ward,	Arts, Raleigh.
Maynard, Belvin Womble,	Arts, Chapel Hill.
Meyer, Louis B.,	Arts, Enfield.
Miller, Clyde Caswell,	Arts, Blowing Rock.
Mock, Henry Bascom,	Arts, Pfafftown.
Monroe, Will Galpin,	Science, Wilmington.
Moore, DuBrutz Cutlar,	Arts, Burgaw.
Moore, William Tamerlane,	Arts, Farmville.
Morgan, Eli John,	Science, Benson.
Nims, Frederick Boyden, Jr.,	Arts, Mt. Holly.
Norman, Milton,	Science, Halifax.
O'Brient, Earl James,	Science, Durham.
Orr, Joe Lee,	Arts, Matthews.
Otten, Kenneth Peschau,	Arts, Wilmington.
Parker, George Farrar,	Arts, Asheville.
Parker, James Curtis,	Arts, Monroe.
Paton, Noel Edward,	Arts, Fayetteville.
Patton, Edward Lapsley,	Science, Newport News, Va.
Patton, James Ralph, Jr.,	Arts, Durham.
Peirce, John Miller,	Arts, Warsaw.
Perdew, John William,	Arts, Wilmington.
Perry, Ely Jackson,	Arts, Kinston.
Pike, David Virgil,	Arts, Siler City.
Pleasants, Harvey McKay,	Science, Rowland.
Pless, James William,	Arts, Marion.
Polk, William Tannehill,	Arts, Warrenton.
Porter, Thurman Allen,	Arts, Kernersville.
Proctor, Edward Knox,	Arts, Lumberton.
Proctor, William Isaac,	Arts, Raleigh.
Quinn, Frank Elbert,	Arts, Warsaw.
Raiff, Isadore,	Science, Winston-Salem.
Ramsey, Albert Lyle,	Arts, Franklin.
Ramsay, James Graham,	Arts, Salisbury.

Rand, Oliver,	Arts,	Smithfield.
Randolph, Marion Herbert,	Arts,	Charlotte.
Ranson, John Oliver,	Arts,	Huntersville.
Ratcliff, Zeno Olen,	Science,	Pantego.
Rawlings, Lenox Daniel,	Science,	Wilson.
Ray, James Clyde,	Arts,	Hillsboro.
Raynor, James,	Arts,	Benson.
Reasoner, Norman,	Arts,	Oneco, Fla.
Reid, John Calvin,	Arts,	Silver Hill.
Reed, Walter Marion,	Arts,	Fairview.
Renn, Harry Jackson,	Arts,	Oxford.
Roberts, Charles John, Jr.,	Arts,	Lyons.
Robertson, Owen Spencer,	Science,	Hillsboro.
Rogers, Torrence Baxter,	Arts,	Lincolnton.
Ross, Robert Marion, Jr.,	Arts,	Shelby.
Rountree, Moses,	Science,	Wilson.
Rousseau, James Parks,	Science,	Wilkesboro.
Royster, David Wyeth,	Arts,	Shelby.
Ruffin, Thomas White,	Arts,	Louisburg.
Schiffman, Harold Anthony,	Science,	Greensboro.
Scott, Byron Carlisle,	Science,	Charlotte.
Shamburger, Frank Dudley,	Arts,	Biscoe.
Sharpe, Howard D.,	Arts,	Stony Point.
Sherrill, Horace Cleveland,	Arts,	Lincolnton.
Shipp, Fabius Busbee,	Arts,	Raleigh.
Shrago, Harry Isaac,	Arts,	Goldsboro.
Shuford, Clinton Lockwood,	Science,	Fairview.
Shuford, George Adams, Jr.,	Arts,	Asheville.
Siddall, Bernard Andrew,	Arts,	Sumter, S. C.
Sloan, Clyde Neely,	Science,	Charlotte.
Sloan, Carter Siler,	Arts,	Franklin.
Slover, George,	Science,	Newbern.
Smith, Joseph Elmer,	Arts,	Wilson.
Smith, Paul Faison,	Arts,	Raleigh.
Smith, William Oliver,	Arts,	Raleigh.
Smithey, Sherman Bryan,	Arts,	North Wilkesboro.
Sparger, Randall Worth,	Science,	Mt. Airy.
Spencer, Robert Baxter,	Arts,	Hobucken.
Squires, Claude Babbington,	Science,	Charlotte.
Starr, Robert Brooks,	Science,	Wilkesboro.
Stell, John Spencer,	Arts,	Raleigh.
Stevens, Henry Leonidas,	Arts,	Warsaw.
Strange, Thomas Wright,	Science,	Wilmington.
Strickland, Walter Roby,	Arts,	Four Oaks.
Suddreth, Willis Clyde,	Arts,	Lenoir.

Swain, Herbert Linwood,	Arts,	Jerry.
Tandy, George Wendall,	Science,	Jacksonville, Ill.
Tanner, Simpson Bobo,	Arts,	Charlotte.
Tate, Charles Lacey,	Arts,	Chadbourn.
Taylor, William Grimsley,	Science,	Greensboro.
Teague, Everette Simon,	Arts,	Taylorsville.
Telfair, Samuel Fowle,	Arts,	Raleigh.
Thompson, Charles Aycock,	Arts,	Goldsboro.
Thorp, Lewis Sumner,	Science,	Rocky Mount.
Timberlake, Francis Justice,	Arts,	Youngsville.
Tomlinson, George Washington,	Arts,	Lucama.
Toxey, Roy Sawyer,	Arts,	Elizabeth City.
Travis, Edward Llewellyn, Jr.,	Arts,	Halifax.
Turlington, Richard Stamey,	Arts,	Clinton.
Tyler, Arthur Lynwood,	Arts,	Henderson.
Vance, Joseph Hezekiah,	Science,	Huntersville.
Walker, Robert Richmond,	Arts,	Union Ridge.
Wall, Frank Privette,	Arts,	Wendell.
Wall, George Collins,	Science,	Hillsboro.
Warden, Eli Beecher,	Arts,	Yadkinville.
Ware, James Eastham,	Arts,	Charlotte.
Warrick, Ed.,	Arts,	Sioux.
Watkins, Robert Young,	Arts,	Thomasville.
Watson, William Randolph, Jr.,	Arts,	Darlington, S. C.
Webster, Jennings Bryan,	Arts,	Siler City.
Wellons, Wilbert Freeman,	Arts,	Selma.
White, Ralph Leon,	Arts,	Winston-Salem.
Williams, Macon McCorkle,	Arts,	Newton.
Williams, Virginius Faison,	Arts,	Faison.
Williamson, Allen Davidson,	Science,	Asheville.
Wilson, Fred Lee,	Science,	Charlotte.
Wilson, John Nestor, Jr.,	Arts,	Greensboro.
Wilson, John Thomas,	Arts,	Rural Hall.
Wilson, Max,	Arts,	Durham.
Winslow, Hillary Goode,	Arts,	Hertford.
Woodall, Edward Lester,	Arts,	Smithfield.
Wooten, Floyd Pugh,	Science,	Kinston.
Worthington, Hubert Smith,	Science,	Winterville.
Wright, James Thomas Carr,	Arts,	Hunting Creek.
Wright, Theodore Oran,	Arts,	Pleasant Garden.
Wright, William Cullen, Jr.,	Arts,	Winston-Salem.
Wyatt, Arthur Thomas,	Science,	Raleigh.
Yates, Grover Cleveland,	Arts,	Chadbourn.
Yelverton, William Bayard,	Arts,	Goldsboro.

Special Students

Andrews, Junius Mebane,	Elect. Med.,	Mebane.
Angel, Furman,	Elect. Med.,	Franklin.
Bell, Felix Ortan,	Elect. Med.,	Linden.
Bonner, John Bryan,	Elect. Med.,	Bonnerton.
Booth, Shepherd Allen,	Special,	Oxford.
Bridgers, Robert Rufus, Jr.,	Special,	Brookline, Mass.
Bynum, Joseph Nicholas,	Special,	Farmville.
Byrd, Carl Hendrix,	Elect. Med.,	Morrisville.
Cagle, Bert,	Elect. Teach.,	Waynesville.
Capps, Edward Francis,	Elect. Law,	Lucama.
Coggin, Charles Lee,	Elect. Law,	Salisbury.
Conrad, Druid Homer,	Special,	Lexington.
Cook, John Henry,	Elect. Law,	Fayetteville.
Coppridge, William Maurice,	Elect. Med.,	Roanoke, Va.
Crouse, Rush Floyd,	Elect. Law,	Nile.
Deaton, Enoch McKnight,	Special,	Mooreville.
Dowd, William Carey, Jr.,	Special,	Charlotte.
Edwards, Opie Gray,	Special,	Spring Hope.
Folger, Paul Bernays,	Elect. Med.,	Dobson.
Gardner, Paris Cleveland,	Elect. Law,	Shelby.
Green, James Alfred,	Elect. Journ.,	Lumberton.
Grimsley, William Tull,	Special,	Greensboro.
Haukler, James Frank,	Special,	Sparta.
Harper, George Arthur,	Special,	Chapel Hill.
Harrison, Theodore Lyman,	Elect. Med.,	Enfield.
Hart, Julian Gilliam,	Elect. Law,	Winston-Salem.
Hawks, Cyrus Eugene,	Elect. Med.,	Mt. Airy.
Hester, Harvey Smith,	Elect. Law,	Asheville.
Hicks, Vonnice Monroe,	Elect. Med.,	Greensboro.
Holt, John Ransom, Jr.,	Elect. Med.,	Princeton.
Hubbard, Frederick Cecil,	Elect. Med.,	Wilkesboro.
Hunter, Norfleet,	Special,	Oxford.
Jarman, Emerson Wiley,	Elect. Med.,	Farmville, Va.
Joyner, James Craig,	Elect. Med.,	Princeton.
Kendrick, Garrie Lee,	Elect. Med.,	Cherryville.
Koonce, Edward Thomas,	Elect. Med.,	Richlands.
Kornegay, Alma,	Special,	Chapel Hill.
Lackey, Boston McGee,	Special,	Lincolnton.
Lawrence, Benjamin Jones,	Elect. Med.,	Creedmoor.
Leak, James Augustus, Jr.,	Special,	Wadesboro.
Little, Robert Eugene,	Special,	Wadesboro.
Long, Joseph Kindred,	Elect. Med.,	Seaboard.
Lovelace, Oscar Newton,	Special,	Mooreboro.

McCall, Charles M.,	Elect. Med.,	Tamassee, S. C.
McDade, Brodie Banks,	Elect. Med.,	Hillsboro.
McGuire, Burruss Boyd,	Elect. Med.,	Norton.
McLean, Ewen Kenneth,	Elect. Med.,	Buie.
McNamara, Andrew Edward,	Elect. Med.,	Jacksonville, Fla.
Marsh, Edward Baxter,	Special,	Salisbury.
Massengill, Jasper Talmage,	Elect. Med.,	Four Oaks.
Meeks, Marcus Henry, Jr.,	Elect. Law,	Nashville, Tenn.
Miller, Mary Scales,	Special,	Chapel Hill.
Murray, Willard Earle,	Special,	Durham.
Nelson, Charles Etheridge,	Special,	Murfreesboro.
Parker, William Baylies,	Special,	Goldsboro.
Patterson, Harriet Oldring,	Special,	Hartford, Conn.
Payne, Ancus Lafayette, Jr.,	Elect. Med.,	Rural Hall.
Pridgen, Ralph Craven,	Special,	Tabor.
Pritchett, Henry Wooding,	Elect. Med.,	Danville, Va.
Ragland, William Trent,	Special,	Salisbury.
Rouse, Walter Bryan,	Special,	Chapel Hill.
Scott, Albert Lee,	Elect. Med.,	Pollokville.
Shields, Leon Grady,	Elect. Med.,	Hobgood.
Sparrow, Wescott Oliver,	Special,	Chapel Hill.
Stevens, Charles Leary,	Special,	Indiantown.
Stone, Leslie Ogburn,	Elect. Med.,	Kittrell.
Tennent, George Raby,	Elect. Med.,	Asheville.
Valley, Leland Francis,	Special,	Charlotte.
Webb, Louis Harward,	Special,	Chapel Hill.
West, Ray Robert,	Special,	Dover.
Wilkinson, William Stronach,	Special,	Rocky Mount.
Wilson, Carl B.,	Special,	Greenville.
Winters, Sellie Robert,	Special,	Stem.
Wolff, Denis Roscoe,	Elect. Med.,	Rural Hall.
Woodruff, Fred Gwyn,	Special,	Sparta.
Wright, John Laurens,	Special,	Wilmington.
Yarborough, Nathaniel Bayard,	Elect. Med.,	Cary.
Yelverton, Richard Becton,	Special,	Fremont.

Senior Students in Law

Bolick, Charles Boone,	Franklin.
Campbell, William Baugham,	Washington.
Canaday, Claude Carl,	Benson.
Dortch, Gaston Lewis,	Goldsboro.
Hamlett, Robert Emmett,	Mt. Gilead.
A. B., 1904, Hampden-Sidney College.	
Jones, Leslie Edward,	Swan Quarker.
Kenyon, John Rockwell,	Newton.
A. B., 1911, Catawba College.	

Leatherwood, Joseph Gilmer,	Waynesville.
Lee, Joseph Raymond,	Faison.
A. B., 1911.	
Oates, William Holt,	Hendersonville.
Outlaw, Alexander Bate,	Elizabeth City.
Parker, Ezra,	Benson.
Phillips, Fitzroy Donald,	Laurinburg.
Rousseau, Julius Addison,	Wilkesboro.
Ruffin, Ernest Cofield,	Whitakers.
A. B., 1908.	
Smith, Paris Cleveland,	Swannanoa.
Taylor, Walter Frank,	Faison.
A. B., 1911.	
Tilley, Edward Lloyd,	Bahama.
Tolson, Henry Albert,	Newport.
Wallace, Fitzhugh Ernest,	Kenansville.
West, William Claude,	Franklin.

Junior Students in Law

Axley, Lowry,	Murphy.
A. B., 1913.	
Beckwith, Clifton Warren,	Raleigh.
Berry, Margaret Kollock,	Chapel Hill.
A. B., 1913.	
Brittain, Basil Frank,	Ashboro.
Buchanan, Henry Frank,	Charlotte.
Burnett, James Alexander,	Asheville.
Cansler, John Scott,	Charlotte.
Cook, Walter Watson,	Fayetteville.
Coulter, William Summey,	Newton.
A. B., 1908, Catawba College.	
Cowles, Joseph Sanford,	Wilkesboro.
A. B., 1911.	
Cowles, William Henry Harrison,	Statesville.
Daniel, James Manly, Jr.,	Deaton.
A. B., 1912.	
Davis, William Cleveland,	Charlotte.
B. S., 1913, Davidson College.	
Dees, Julius G.,	Grantsboro.
Fisher, Ben,	Webster.
Folger, Alonzo Dillard,	Dobson.
A. B., 1912.	
Gilman, Thomas Etheridge,	Jacksonville.
Gooch, Lee Currin,	Oxford.
Graham, Augustus Washington, Jr.,	Oxford.
A. B., 1912.	
Hartshorn, Edwin Shotts,	Asheville.
Higgins, Carlisle Wallace,	Sparta.
A. B., 1912.	

Johnston, Julius,	Yanceyville.
Jones, Frank Carlton,	Plymouth.
Joyner, Grover Hunter,	Woodland.
A. B., 1900, Wake Forest College.	
Joyner, LeRoy,	Rocky Mount.
Kyser, Howell Royster,	Rocky Mount.
Lipscombe, Sterling Albert,	Durham.
McKane, Paul,	Charlotte.
McNeill, Loughlin,	Burgaw.
B. S., 1900, Davidson College.	
Pou, James Hinton, Jr.,	Raleigh.
Smith, Major Thomas,	Reidsville.
Spears, Marshall Turner,	Lillington.
A. B., 1913.	
Strong, George Vaughan,	Raleigh.
Stroup, Matthew Augustus,	Cherryville.
Stubbs, Harry Murden,	Williamston.
A. B., 1913.	
Teague, Samuel Farris,	Goldsboro.
A. B., 1910.	
Thompson, William Clark,	Woodville.
Trotter, Benjamin Carter,	Reidsville.
A. B., 1911.	
Turbyfille, Joseph Manson,	Waynesville.
B. A., 1913, Washington and Lee University.	
Wall, Le Roy Byron,	Tobaccoville.
Webster, Felix Litaker,	Wilkesboro.
Whiting, Seymour Webster,	Raleigh.
Williams, James McBryde,	Godwin.
Williams, Warren Rand,	Sanford.
Winston, Robert Watson, Jr.,	Raleigh.
A. B., 1912.	

Special Students in Law

Brock, Burr Coley,	Farmington.
Cranford, Orlando Wadesworth,	Ashboro.
Davis, Orville Thomas,	Waynesville.
Horton, Wilkins Perryman,	Durham.
Keith, Vester Washington,	Creedmoor.
Kidd, Ralph Vincent,	Charlotte.
Kirby, Dallas Cecil,	Rural Hall.
Lindsay, Charles Lee,	Chapel Hill.
Parker, Albert D.,	Silver.
Raper, Paul Roberts,	Lexington.
Shannon, Henry Clay, Jr.,	Goldsboro.
Strickland, Moses Stewart,	Scotland Neck.
Tyler, Ernest Rudolph,	Roxobel.
Waggoner, James Martin,	Efland.
Whitfield, Henry Adams,	Goldsboro.

Students in Law—(Summer School)

Alexander, Julia McGehee,	Charlotte.
*Axley, Lowry,	Murphy.
A. B., 1913.	
Babbitt, Zebulon Vance,	Bayboro.
Beam, William Speight,	Shelby.
Boushall, John Heck,	Raleigh.
A. B., 1910.	
Branch, James Robert,	Wilmington.
Brothers, William Tyndal,	Elizabeth City.
Burgess, Caleb Kight,	Old Trap.
A. B., 1912.	
*Canaday, Claude Carl,	Benson.
Carter, Thomas Clifford,	Liberty.
Carver, Gordon Atkinson,	Marion Station, Md.
A. B., 1909, Western Maryland College.	
*Cowles, William Henry Harrison,	Statesville.
Dawson, Joseph Green,	Newbern.
A. B., 1911.	
Dees, William Archie,	Pikeville.
A. B., 1911.	
*Gooch, Lee Currin,	Oxford.
Graham, Alexander Hawkins,	Hillsboro.
A. B., 1912.	
Gravely, Lloyd Lee,	Rocky Mount.
A. B., 1910, Randolph Macon College.	
Gwynn, Price Henderson, Jr.,	Leaksville.
A. B., 1912, A. M., 1913.	
*Hamlett, Robert Emmett,	Mt. Gilead.
A. B., 1904, Hampden-Sidney College.	
Hannah, Harry Burgwyn,	Siler City.
Henry, Byron Vance,	Lilesville.
A. B., 1912.	
Horney, Julius Teague,	High Point.
A. B., 1911, Lenoir College.	
Ireland, James Franklin,	Rocky Mount.
*Jones, Leslie Edward,	Swan Quarter
A. B., 1908.	
Jones, Walter Raleigh,	Rockingham.
Jordan, John Richard,	Winton.
*Kidd, Ralph Vincent,	Charlotte.
King Robert Ruffin, Jr.,	Greensboro.
Kittrell, Robert Gilliam,	Tarboro.
Ph. B., 1899.	
*Lindsay, Charles Lee,	Chapel Hill.
Long, Samuel Mann,	Lake Landing.
Manning, John Hall,	Durham.
A. B., 1909.	
Marshall, Hunter, Jr.,	Lynchburg, Va.
L.L. B., 1912, Georgetown University.	
Moore, Carl Dana,	Charlotte.

Roberts, Jesse Lee,	Wentworth.
*Ruffin, Ernest Cofield,	Whitakers.
A. B., 1908.	
Stancill, Jesse Clyde,	Charlotte.
Stockton, Richard Gordon,	Winston-Salem.
A. B., 1911.	
Teague, Claude Edward,	Cameron.
A. B., 1912.	
Teague, Dossey Battle,	Cameron.
A. B., 1910.	
*Teague, Samuel Farris,	Goldsboro.
A. B., 1910.	
Trivette, Eugene,	Harmony.
Ward, Eugene Carroll,	Waynesville.
A. B., 1911.	
Wharton, Cyrus Richard,	Gibsonville.
A. B., 1912.	
Whitney, Floyd Gilbert,	Bessemer City.
A. B., 1911.	
*Williams, James McBryde,	Godwin.
* Also in regular attendance, Session 1913-'14.	

Students in Medicine

Austin, DeWitte Ray,	First,	Charlotte.
Bennett, Paul Archer,	First,	Winston-Salem.
A. B., 1913.		
Bigger, David Andrew,	First,	Rock Hill, S. C.
Boushall, Joseph Dozier, Jr.,	First,	Raleigh.
Brockman, Harry Lyndon,	First,	Greensboro.
Burrus, Thomas Preston,	Second,	Fairfield.
Castelloe, Cola,	First,	Aulander.
Conroy, Frank Davies,	First,	Cullowhee.
Cox, Russell Mills,	First,	Washington.
Craven, Thomas,	First,	Charlotte.
Crouch, Auley McRae,	Second,	Roberdel.
Eley, Clayton Willard,	Second,	Woodland.
Fetzer, Paul Williams,	Second,	Reidsville.
Gainey, John White,	First,	Parkton.
Greenwood, Adolphus Bart,	Second,	Barnardsville.
A. B., 1910.		
Griffin, Mark Alexander,	Second,	Wingate.
Henry, Tidal Boyce,	Second,	Wadesboro.
Huff, John Melville,	First,	Henderson.
Hunter, DeWitt Talmage,	Second,	Huntersville.
Isley, Christian Leonard,	First,	Burlington.
James, Fairley Patterson,	Second,	Laurinburg.
A. B., 1912.		
Jennings, Olin Henry,	Second,	Poors Knob.
Johnson, George Grady,	First,	Durham.
A. B., 1913, Trinity College.		

Joyner, Robert Thomas,	First,	Rocky Mount.
Kirkpatrick, Cleveland Fane,	First,	Clyde.
A. B., 1900.		
Kluttz, DeWitt,	First,	Chester, S. C.
B. S., 1911, Davidson College.		
Kritzer, Henry Roland,	Second,	Spencer.
Lassiter, Henry Grady,	First,	Lasker.
Latham, Joseph Roscoe,	First,	Belhaven.
Litchfield, Charles Aycock,	First,	Aurora.
Long, Roy Hamilton,	Second,	Monroe.
McCants, John Marion,	First,	Guthriesville, S. C.
McKay, William Peter,	Second,	Red Springs.
McKenzie, Benjamin Whitehead,	Second,	Salisbury.
Massey, William Everard,	First,	Rock Hill, S. C.
Moore, Allen Hoyt,	Second,	Washington.
Newman, Samuel Raphael,	First,	Washington.
Norburn, Charles Strickland,	First,	Acton.
Parrott, Mercer Cranor,	First,	Kinston.
Pate, James Gibson,	Second,	Gibson.
Perrel, David Franklin,	First,	Germanton.
Rawls, John Lewis,	First,	Gatesville.
Royster, Thomas Sampson,	Second,	Townesville.
A. B., 1912, A. M., 1913.		
Sabiston, Frank,	First,	Jacksonville.
Shaver, William Trantham,	First,	Salisbury.
Singletary, George Currie,	First,	Chapel Hill.
A. B., 1905.		
Smith, William Alexander,	Second,	Goldsboro.
Spence, Ralph Case,	First,	Kipling.
Spoon, Samuel Clarence,	First,	Haw River.
Starr, Henry Frank,	Second,	Salisbury.
Swindell, Lewis Holmes, Jr.,	Second,	Swan Quarter.
Tamraz, John Moorhaj,	First,	Tabriz, Persia.
Thigpen, Frank Lafayette,	First,	Tarboro.
Thigpen, Harry Gordon,	First,	Tarboro.
Uzzle, Edward Foy,	Second,	Raleigh.
Vann, Norman St. George,	Second,	Charlotte.
Warlick, Henry Clinton,	First,	Newell.
West, Clifton Forrest,	First,	Dover.
Williams, William Christopher,	First,	Durham.
Wright, Junius Holt,	First,	Siler City.

Students in Pharmacy

Adams, Wilbur Coble,	First,	Rowland.
Allen, Wilson William,	First,	Hendersonville.
Anderson, William Hubert,	First,	Mars Hill.

Andrews, Richard Homer,	Second,	Chapel Hill
Brantley Paul,	Second,	Wilson.
Brewer, Stroud Otis,	First,	Thomasville.
Briles, David Thomas,	Special,	Fayetteville.
Cassel, Samuel Arthur,	Second,	North Wilkesboro.
Cheek, DeWitt Gilmore,	First,	Mandale.
Covington, Robert Cooper,	First,	Laurinburg.
Fishel, Arthur Levi,	First,	Winston-Salem.
Fowlkes, William Mortimer,	Special,	Rockingham.
Grantham, Leland Bert,	First,	Mt. Olive.
Guin, Clyde Doyle,	First,	Unionville.
Hamilton, John Robert,	First,	Oxford.
Harper, John Sugg,	First,	Snow Hill.
Haymore, Joe Baxter,	Special,	Mt. Airy.
Heath, David,	Second,	Rock Hill, S. C.
Hicks, William Snelling,	First,	Raleigh.
Higgins, Summey Byrd,	Second,	Leicester.
Jernigan, Rupert Watson,	First,	Mt. Olive.
Kirby, Kenneth Alexander,	Second,	Marion.
Lytch, James Edison,	Second,	Rowland.
McDaniel, William Aubrey,	First,	Enfield.
McDuffie, Roger Atkinson,	First,	Greensboro.
McInnis, Ellis Talmage,	Special,	Troy.
McPhaul, Hector Bruce,	Special,	Lumberton.
Morris, Norway,	First,	Atlantic.
Morrisette, Calvin Blackwell,	First,	Elizabeth City.
Murphy, Lonnie Weightman,	Special,	Raleigh.
Parsons, James Henry,	Special,	Newton.
Patterson, Fred Marion,	First,	Concord.
Peeler, George Calvin,	First,	Salisbury.
Pender, Frank Howard, Jr.,	First,	Tarboro.
Petrea, Fred Smith,	First,	Glass.
Pope, William Crawford,	First,	Mars Hill.
Redmon, Herman Leslie,	Second,	Marshall.
Rogers, John Lambeth,	Second,	Creedmoor.
Rosenbaum, Carl David,	First,	Tarboro.
Shaw, Rufus Sugg,	First,	Halifax.
Simmons, Hansford Randolph,	First,	Graham.
Turlington, Jesse Eli,	First,	Benson.
Warren, Julius Campbell,	Second,	Benson.
Whitmire, William Probate, Jr.,	First,	Hendersonville.

SUMMER SCHOOL STUDENTS, 1913

Abernethy, Dora Elizabeth,
Abernethy, Frances Truehart,
Aiken, Alberta,
Aiken, J. B.,
Albertson, Catherine S.,
Alderman, Ernest Hamlin,
Alexander, S. Irwin,
Alexander, Violet,
Andrews, Josie,
Andrews, Loula,
Andrews, Rena,
Arnold, Mrs. J. H.,
Arrowood, Sylvia L.,
Avery, Rossie,
Barker, Elsie G.,
Barnes, Irene,
Barnette, Irene,
Barrett, Mabel,
Barringer, Ellen,
Beam, John Alexander,
Beam, Mrs. J. A.,
Beam, Mike Seth,
Bearden, Elizabeth Steele,
Benthall, Nancy Louise,
Berg, Albert J.,
Berg, Lydia,
Berry, Ruth Beverly,
Best, Fannie E.,
Bible, Dana X.,
Biggs, Jessie Ione,
Bigham, Anabel,
Bingham, Florence E.,
Bivens, Esther,
Blanton, Lawton,
Blue, Flora,
Blue, Jean P.,
Booe, Naomi,
Boyd, Carrie Hubbard,
Breedlove, Beulah Wilson,

Chapel Hill.
Chapel Hill.
Durham.
Aberdeen.
Elizabeth City.
Greensboro.
Huntersville.
Huntersville.
Mt. Gilead.
Asheboro.
Durham.
Neuse.
Hemp.
Dover.
Apex.
Rocky Mount.
Roxboro.
Rocky Mount.
Salisbury.
Woodsdale.
Woodsdale.
Henry.
Chapel Hill.
Aulander.
Greensboro.
Greensboro.
New Bern.
Warsaw.
Jefferson City, Tenn.
Laurinburg.
Pineville.
Daytona, Fla.
Salisbury.
Shelby.
Efland.
Efland.
Cana.
News Ferry, Va.
Hester.

Brinson, Minnie,
Brooks, Edna Wright,
Brooks, Lizzie M.,
Brooks, Olivia W.,
Brown, Anne Estelle,
Brown, Helen Margaret,
Brown, Hennie,
Brown, Mary Louise,
Bruce, Mabel,
Bryan, Jane Lane,
Bryant, Ellen C.,
Buchanan, Anna Meta,
Buck, G. C.,
Buie, Katie McL.,
Bulla, T. Fletcher,
Bullard, Kate,
Burgess, William Grady,
Buttrick, Eula,
Butts, Lucy,
Bynum, S. W.,
Byrd, Mabel Winfield,
Byrd, Mamie,
Byrum, Emma C.,
Camp, Lucy Lawrence,
Campbell, Ada,
Carden, Reva C.,
Carlton, Emma Grace,
Carrick, Mrs. Lizzie B.,
Carroll, Edith E.,
Carroll, Herbert,
Carstarphen, Augusta C.,
Cate, Elizabeth Julia,
Cates, Clyde Lucius,
Chamblee, Maida,
Chappell, John Thomas,
Choate, Ona,
Clapp, Fanny Elmo,
Clark, Mrs. Jessie Lee,
Claytor, Margaret,
Claytor, Robert Hume,
Clifton, Pearl,
Cline, Lottie Elaine,
Cline, Mae,
Coble, Ivy,
Coble, Roberta,

Currie.
Laurinburg.
Laurinburg.
Laurinburg.
Hillsboro.
Chapel Hill.
Whitakers.
Greensboro.
West Durham.
Fort Barnwell.
Rich Square.
Laurinburg.
Grimesland.
Red Springs.
Asheboro.
Fayetteville.
Shelby.
Asheville.
Mt. Olive.
University.
Smithfield.
Morrisville.
Edenton.
Lincolnton.
Paw Creek.
Durham.
Warsaw.
Spencer.
Burlington.
Forest City.
Roper.
Chapel Hill.
Chapel Hill.
Zebulon.
Belvidere.
Huntersville.
Burlington.
Elizabethtown.
Chapel Hill.
Chapel Hill.
Faison.
Hickory.
Lincolnton.
Burlington.
Laurinburg.

Coburn, Louis F.,
Coleman, Inabelle,
Collins, Inda Grey,
Cooper, Geo. Long,
Coppedge, Sallie Y.,
Corbin, Evelyn Randolph,
Costen, Jeannette S.,
Costen, Lucy S.,
Costen, T. W.,
Costen, Mrs. T. W.,
Cothran, Allie,
Coulter, E. Merton,
Coulter, Nora Jane,
Covington, Bessie,
Coxe, Ellen,
Craig, William Gilbert,
Credle, Clement G.,
Critcher, Lillie,
Crowder, Anna,
Crumpler, R. P.,
Cunningham, Dessie,
Cunningham, Mildred,
Currie, Connie,
Currie, Hallie,
Dailey, Byrd,
Dalton, Lillian,
Davis, I. W.,
Davis, Mattie,
DeBerry, Lura M.,
Dellinger, Mary,
Deloatch, William Starr,
Dicks, Claudia,
Dixon, Mrs. Ethel E.,
Dixon, Juanita E.,
Dixon, Lizzie E.,
Dunbar, Wade Stafford,
Duncan, Annie,
Duncan, Elizabeth,
Duncan, Joseph L.,
Eaker, C. L.,
Edgerton, Eva,
Edgerton, Rena,
Edwards, Berrie Griffin,
Edwards, Flossie,
Edwards, Lucile,

Jamesville.
Lyons.
Holly Springs.
Graham.
Wadesboro.
Winston-Salem.
Gates.
Gates.
Gates.
Gates.
Rougemont.
Connelly Springs.
Newton.
Red Springs.
Red Springs.
Blackwood.
Swan Quarter.
Wakefield.
Hendersonville.
Stem.
Almond.
Greensboro.
Candor.
Red Springs.
Burlington.
Winston-Salem.
Wanchese.
Asheville.
Red Springs.
Mt. Holly.
Lasker.
Randleman.
Hendersonville.
Winterville.
Mt. Vernon Springs
Oak Ridge.
Moriah.
Raleigh.
Clayton.
Cherryville.
Goldsboro.
Kenly.
Goldsboro.
Princeton.
Seaboard.

Eller, Wade E.,
Evans, Josephine,
Evans, Willie McD.,
Ewell, Carrie,
Faison, Julia M.,
Faison, Katherine S.,
Faust, Louise,
Fenner, Jas. S. Paull,
Ferguson, Kate,
Ferguson, Mamie Lee,
Ferrell, Cornelia,
Ferrell, Jane Amanda,
Flake, Daisy Eugenia,
Fleming, Selma,
Forehand, Katie,
Foy, Grace,
Foy, Bessie,
Franklin, Minnie L.,
Freeman, John Webster,
Fuller, Carrie Hunt,
Garriss, Minnie,
Gary, Vivian Earl,
Gaston, W. G.,
Gattis, Elizabeth Burnett,
Gay, Ida S.,
Gill, Emma Washington,
Gill, Grace Everett,
Glass, Lettie,
Graham, Violet Arvin,
Grant, Janie,
Gray, Anabel,
Green, Allene,
Green, Mary,
Green, Vergie E.,
Griffin, Marie L.,
Griffin, Mattie Saunders,
Guthrie, Ada,
Guthrie, Rose,
Hadley, Lela,
Hall, Clara B.,
Harding, M. Bessie,
Hargrave, L. L.,
Harrell, Augusta,
Harrelson, Lucye,
Harrelson, Pearl,

Clifton.
St. Pauls.
Fayetteville.
Morehead City.
Wilmington.
Wilmington.
Baird, Texas.
Raleigh.
Neuse.
Murphy.
Clinton.
Ruffin.
Wadesboro.
Hassell.
South Mills.
Mt. Airy.
Winston-Salem.
Raleigh.
Mooresville.
Oxford.
Pikeville.
Spencer.
Lowell.
Chapel Hill.
Seaboard.
Laurinburg.
Laurinburg.
Greensboro.
Richmond, Va.
Garysburg.
Winston-Salem.
Durham.
Shelby.
Durham.
Elm City.
Elizabeth City.
Burlington.
Engelhard.
Williamston.
Charlotte.
Washington.
Battleboro.
Sunbury.
Cherryville.
Cherryville.

Harrill, Lillian,
Harris, Elisha Carter,
Harris, Nan C.,
Harris, Sallie V.,
Harrison, Thomas Perrin, Jr.,
Harry, Woodfin Grady,
Hart, Millard,
Hayes, Lucy E.,
Hedrick, Beulah,
Heller, Mary,
Henson, J. B.,
Herring, Annie Louise,
Herring, Margaret,
Hester, Dixie Taylor,
Hethcox, Winona,
Higdon, Fred,
Highsmith, James A.,
Hill, Dudley Brown,
Hill, John B.,
Hill, Reba,
Hinshaw, Clifford R.,
Hodge, Hattie Elizabeth,
Holliday, Maggie Irma,
Holmes, Mary Davis,
Holt, Daniel Cicero,
Holt, Lillian,
Hooten, Maude Estelle,
Hoover, Troy J.,
Hopkins, Minnie,
Horney, Maggie E.,
Horton, Cassie M.,
Horton, Marye Thomas,
House, Nannie M.,
Howell, Bernice Tayloe,
Hunter, Mrs. Betsie R.,
Hunter, Essie Dale,
Hunter, Norfleet,
Hunter, W. R.,
Ingram, Benjamin C.,
Ives, Claude Leon,
Ivey, Bessie F.,
Ivey, Mary Esther,
James, Olive Barre,
Jervis, C. Fred,
Jervis, Ethel,

Forest City.
Elizabeth City.
Chapel Hill.
Youngsville.
Raleigh.
Grover.
Seaboard.
Gatesville.
Edenton.
Spencer.
Dallas.
Chapel Hill.
Chapel Hill.
Oxford.
Davidson.
Higdonville.
Greensboro.
Warsaw.
Warsaw.
Cliffside.
Randleman.
Efland.
Snow Camp.
Woodland.
Burlington.
Smithfield.
Belhaven.
High Point.
Oxford.
Farmer.
Wakefield.
Durham.
Stokes.
Severn.
Cary.
Holly Springs.
Oxford.
Alexander.
Louisburg.
Grifton.
Norwood.
Cary.
Bishopville, S. C.
Asheville.
Asheville.

Jobe, Levi Haywood,
Johnson, John Lester,
Johnson, Lillian,
Johnson, Maude E.,
Johnson, Ophelia,
Johnson, Ruby Catherine,
Johnston, Leslie N.,
Jones, Alva Lee,
Jones, Annie R.,
Jones, Frank Carleton,
Jones, Mabel Webb,
Jones, Mamie Elizabeth,
Jones, Margaret Cooke,
Jones, Mattie Hardy,
Jones, Rassie M.,
Jones, Ruth,
Jones, William Henry,
Jordan, Robert A.,
Keehln, Louise,
Kennett, Paul Strayer,
Kerr, Erwin,
Knott, Earlie V.,
Koonce, Annie E.,
Kornegay, Alma,
Lansdell, Nan,
Lassiter, Ruth Mae,
Latshaw, Harry F.,
Latta, Huldah G.,
Lawrence, Victoria,
Leach, Nora,
Leary, Amanda L.,
Leary, Bettie V.,
Ledbetter, Ida Belle,
Lefler, Lena May,
Lloyd, Annie Tazwell,
Lockhart, John Clegg,
Long, Annie G.,
Long, Jessie Melvin,
Loonam, Florence,
Maddox, D. W.,
Mann, Grover Carlisle,
Markham, Lela Belle,
Marrow, Alice Burwell,
Marshall, Geo. O.,

Mebane.
Dunn.
Potecasi.
Rose Hill.
Rose Hill.
Delway.
Wilmington.
Wakefield.
Manteo.
Plymouth.
Hillsboro.
Louisburg.
Raleigh.
Louisburg.
Woodsdale.
Smithfield.
Yanceyville.
Dunn.
High Point.
Stokesdale.
Charlotte.
Wakefield.
Richlands.
Chapel Hill.
Semora.
Corapeake.
Almond.
Oxford.
Pilot Mountain.
Franklin.
Colerain.
Merry Hill.
Dome.
Cooleemee.
Chapel Hill.
Chapel Hill.
Matthews.
Mollie.
Oxford.
Durham.
Franklin.
Durham.
Henderson.
Acme.

Mason, Nora Belle,
 Maynard, Mrs. B. W.,
 McAulay, Mrs. Jno. A.,
 McCall, Charley M.,
 McCauley, Sudie Gertrude,
 McColman, Sallie,
 McCorkle, Mary,
 McCorkle, Rose,
 McCreary, Jessie,
 McCullers, Alice,
 McGehee, Anne Ludlow,
 McGee, Ward V.,
 McIntyre, Mamie,
 McKeown, Howard H.,
 McKinney, Lelia,
 McKinney, Willie Russell,
 McKinnon, Flora,
 McLean, Mary,
 McLean, Nealie,
 McMillan, Effie,
 McMillan, Rosa,
 McNeill, Pearl,
 McQueen, Flora,
 Medlin, Mary Woodward,
 Meeder, Annie Dora,
 Merritt, Bess,
 Merritt, Rupert Polk,
 Middleton, Ada Maie,
 Middleton, Lucy,
 Modgette, Letitia,
 Miller, Charles Ivey,
 Miller, Cornelius,
 Miller, Mamie Lee,
 Miller, Marion Robertson Spiers,
 Miller, Mary Scales,
 Mitchell, James Anderson,
 Mitchiner, Belle,
 Monroe, Baxter C.,
 Monroe, Carrie D.,
 Monroe, Mamie,
 Monroe, Pattie,
 Moore, Agnes,
 Moore, Ethel M.,
 Moore, William P.,
 Morgan, Lucy Lee,

Edenton.
 Mt. Olive.
 Mt. Gilead.
 Charlotte.
 Chapel Hill.
 McColl, S. C.
 Alexis.
 Alexis.
 Clyde.
 McCullers.
 Chapel Hill.
 Leicester.
 Troy.
 Stanley.
 Brown's Summit.
 Brown's Summit.
 Laurinburg.
 Red Springs.
 Red Springs.
 Parkton.
 Red Springs.
 Vass.
 Dunn.
 Raleigh.
 Ridgeway.
 Mt. Airy.
 Chapel Hill.
 Warsaw.
 Warsaw.
 Manteo.
 Richfield.
 Dallas.
 Newton.
 Dallas.
 Dallas.
 Asheville.
 Franklinton.
 Salisbury.
 Rockingham.
 Rockingham.
 Rockingham.
 Farmville.
 Blanche.
 Fonta Flora.
 Corapeake.

Morris, Sarah Elizabeth,
Morrow, Helen A.,
Moser, Early Hampton,
Moser, John William,
Moses, Mildred McKee,
Moss, Clyde B.,
Moss, Mattie,
Moye, Mary,
Nanney, H. A.,
Newberry, Carrie,
Newman, S. R.,
Newton, Bertha L.,
Newton, Grace Edna,
Nichols, Bertha,
Nichols, Mary Edith,
Nichols, Vienna,
Nicholson, Maude,
Nixon, Mary B.,
Nixon, Myra,
Norman, Anna Pearl,
Norman, Mamie Wilmer,
Norman, Margaret Julia,
Olive, Loula Bryan,
Orr, James Lawrence,
Owens, Nellie,
Page, Minnie E.,
Paris, Helen,
Paris, Mrs. James Y.,
Parker, Carrie Myra,
Parker, Josie C.,
Parker, Oscar L.,
Parker, Roscoe E.,
Parker, Samuel G.,
Patterson, Mary,
Payne, Ann B.,
Peacock, Josephine,
Peede, Dallie E.,
Peele, Margaret Edith,
Perkinson, Mamie Fleming,
Perry, Estelle,
Perry, Lessie,
Perry, Rosa,
Phillips, Guy B.,
Phillips, Kate,
Pickard, Bertha,

Edenton.
Graham.
Zebulon.
Rural Hall.
Chapel Hill.
Littleton.
New London.
Farmville.
Rocky Mount.
Creswell.
Warsaw, Russia.
Roxboro.
Roxboro.
Roxboro.
Roxboro.
Asheville.
Statesville.
Sunbury.
Lincolnton.
Chapel Hill.
Chapel Hill.
Chapel Hill.
Apex.
Mars Hill.
Fountain.
Morrisville.
Oxford.
Oxford.
Woodland.
Potecasi.
Clinton.
Selma.
Kinston.
Chapel Hill.
Washington.
Fremont.
Neuse.
Guilford.
Rocky Mount.
Macon.
Sanford.
Macon.
Trinity.
Roberdel.
Chapel Hill.

Pickard, Carrie,
Pittard, Bridges Winston,
Plonk, Ethel,
Poole, Kitty,
Powell, Mary Elizabeth,
Powell, Mary M.,
Prevatte, Dovie,
Prevatte, Edna,
Price, Mary M.,
Proctor, Edward Knox,
Proctor, Lena,
Pruden, Audrey,
Ragland, Lucy,
Raiford, Myra,
Rankin, Edgar Ralph,
Rawls, Mary,
Rea, L. M.,
Reynolds, Lulie Snow Virginia,
Rhodes, Leland Brown,
Rhodes, William H.,
Richardson, Frances,
Riddick, Laura L.,
Riddick, Nannie,
Rigsbee, Elizabeth,
Roberson, Hoyt,
Roberts, Ruth Almeda,
Robertson, Owen S.,
Robinson, Ellen,
Robinson, Mary,
Robinson, Pannie W.,
Rogers, B. M.,
Rollins, Etta,
Royall, Kenneth Claiborne,
Sawyer, Lida,
Scott, Glenn Gordon,
Scott, Leslie,
Seckinger, Daniel Lamont,
Shankle, Pauline,
Shealy, Willie Brodie,
Sherer, Willie Ella,
Sinclair, John Frank,
Singleton, Ursula Florence,
Sledge, Clara,
Smith, Carrie,
Smith, Emma,

Chapel Hill.
Oxford.
King's Mountain.
Clayton.
Blanche.
Cremo.
Lumberton.
Lumberton.
Pineville.
Lumberton.
Rocky Mount.
Severn.
Oxford.
Princeton.
Gastonia.
Wilson.
Matthews.
Raleigh.
Chapel Hill.
Chapel Hill.
Dover.
Gatesville.
Gatesville.
Durham.
Pollocksville.
Red Springs.
Hillsboro.
Charlotte.
Charlotte.
Ridgeway.
Liberty.
Holly Springs.
Goldsboro.
Belhaven.
Mebane.
Jacksonville.
Rincon, Ga.
Landrum, S. C.
White Rock, S. C.
Blacksburg, S. C.
Maxton.
Roper.
Louisburg.
Plymouth.
Huntersville.

Smith, Henry Watterson,
Smith, Marianne,
Solomon, Mrs. Julia F.,
Spears, Joseph McKay,
Spence, Ralph C.,
Spencer, Emily L.,
Spiers, Annie Moore,
Spratt, Thos. B.,
Springle, Erah,
Stafford, Susie,
Stanley, Cinderella,
Starr, Hannah J.,
Steele, Cornelia A.,
Stewart, Eunice,
Stewart, Evelyn,
Stewart, Horace,
Stimson, Laura,
Stipe, Lula M.,
Stone, Alma Irene,
Story, Thomas Edgar,
Strayhorn, Uva,
Street, Evye,
Strother, Ruth,
Stroup, Mary E.,
Strowd, Mary Louise,
Stuckey, Irene,
Sumner, Helen,
Sutton, Annie,
Swain, Herbert Linwood,
Swindell, Myrtle,
Tayloe, Bessie,
Taylor, Agnes,
Taylor, Bettie,
Taylor, Hattie Steele,
Teague, Robert Tilden,
Teague, Talmage S.,
Terry, Annie Bruce,
Thomas, Claudia Ila,
Thomas, William Renn,
Thompson, E. A.,
Tilley, Flossie Y.,
Tisdale, Henrie G.,
Todd, Nina Lee,
Tomlinson, G. W.,
Tucker, Lillie,

Guilford College.
Huntersville.
Savannah, Ga.
Lillington.
Kipling.
South Mills
Como.
Charlotte.
Beaufort.
Burlington.
Pleasant Hill.
Woodland.
Lumberton.
Charlotte.
Manson.
Unionville.
Greensboro.
Winston-Salem.
Chapel Hill.
Blowing Rock.
Durham.
Mill Creek.
Hester.
Hickory.
Chapel Hill.
Kenly.
Salisbury.
Candor.
Jerry.
Belhaven.
Ahoskie.
New Richmond, Ohio.
Faison.
Gatesville.
Bakersville.
Atkinson.
Reidsville.
Jonesboro.
Hiddenite.
Mt. Holly
Hillsboro.
Wakefield.
LaGrange.
Lucama.
Winterville.

Tucker, Onnie,
 Underwood, Sadie,
 Underwood, Robert L.,
 Vassor, Willie,
 Vernon, Carrie Sue,
 VonGlahn, Katherine,
 Walker, Ivey,
 Walker, Sadie Carroll,
 Waller, Mamie,
 Walston, Mary L.,
 Walters, Mary Olive,
 Walton, Janet E.,
 Walton, Lucille G.,
 Walton, Margaret A.,
 Warde, Mamie Pearl,
 Ware, Allie Brown,
 Warlick, Mae,
 Warters, Fannie F.,
 Watkins, Edna Earl,
 Wellons, Ben Fletcher,
 Whitaker, Alice,
 Whitaker, Cary H., Jr.,
 Whitaker, Clifton L.,
 Whitaker, Clifton L., Jr.,
 Whitaker, Margaret,
 Whitaker, Susie,
 White, Allys C.,
 White, Lila,
 White, Mary E.,
 White, Ollie,
 Whitley, Mrs. Helen P.,
 Whitley, Pauline L.,
 Whitley, Ruth Frances,
 Wiggins, Alienne,
 Willeford, Estelle,
 Williams, Bessie,
 Williams, C. U.,
 Williams, J. A.,
 Williams, Lautina,
 Williams, Lucy,
 Williams, Margaret,
 Williams, Mary,
 Williams, Mary F.,
 Williams, William Christopher,
 Williamson, Francis Marvin,

Louisburg.
 Goldsboro.
 Bailey.
 Littleton.
 Burlington.
 Wilmington.
 Winston-Salem.
 Winston-Salem.
 Raleigh.
 Pinetops.
 Hertford.
 Gatesville.
 Gatesville.
 Gatesville.
 Windsor.
 Salisbury.
 Belwood.
 LaGrange.
 Blanch.
 Smithfield.
 Chapel Hill.
 Chapel Hill.
 Enfield.
 Enfield.
 Enfield.
 Enfield.
 Wilmington.
 Statesville.
 Scotland Neck.
 Almond.
 Zebulon.
 Zebulon.
 Zebulon.
 Middleburg.
 King's Mountain.
 Drum Hill.
 Tabor.
 Greensboro.
 Kittrell.
 Warsaw.
 Kittrell.
 Drum Hill.
 Warsaw.
 Durham.
 Pittsboro.

Wilson, Mayme,
Winborne, Annie Sue,
Winfield, Florence,
Winkler, Claudia A.,
Womble, Lollie,
Woody, Eugenia B.,
Woody, Marie M.,
Wooten, May Dee,
Workman, John H.,
Yates, Marjorie B.,
Yeargin, J. T.,
Yeargin, Mrs. J. T.,

Raleigh.
Como.
Washington.
Winston-Salem.
Chapel Hill.
Woodsdale.
Woodsdale.
Chadbourn.
Cherryville.
Biscoe.
Crystal Hill, Va.
Crystal Hill, Va.

GENERAL SUMMARY

Boards of Government and Instruction and Other Officers

Trustees		81
Professors	48	
Instructors	13	
Fellows and Assistants	26	
	<hr/>	87
Other Officers		13

Students

THE COLLEGE:

Senior Class	71	
Junior Class	88	
Sophomore Class	121	
Freshman Class	278	
Special Students	78	
	<hr/>	636

THE GRADUATE SCHOOL	42
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THE SCHOOL OF LAW:

Students in Law	101	
Special Students in Law	15	
	<hr/>	116

THE SCHOOL OF MEDICINE:

Second Year Students	22	
First Year Students	38	
	<hr/>	60

THE SCHOOL OF PHARMACY:

Second Year Students	10	
First Year Students	27	
Special Students	7	
	<hr/>	44

Total Number of Students	898
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Deduct for Names counted twice	12
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Total Number of Regular Students	886
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Total Attendance Summer School for Teachers, 1913....	500
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Total.....	<hr/> 1386
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THE ASSOCIATIONS OF THE ALUMNI

THE GENERAL ASSOCIATION

JULIAN S. CARR, President.
WALTER MURPHY, Secretary.

The Alumni Council

ROBERT BINGHAM, *Chairman*, Asheville, N. C.
WALTER MURPHY, *Secretary*, Salisbury, N. C.
J. Y. JOYNER, *Treasurer*, Raleigh, N. C.

1913*

HAYDEN CLEMENT, A. B., Salisbury, N. C.
W. J. ANDREWS, A. B., Raleigh, N. C.
J. C. B. EPHRINGHAUS, A. B., Elizabeth City, N. C.
A. S. BARNARD, A. B., Asheville, N. C.
ROBERT BINGHAM, LL. D., Asheville, N. C.

1914

D. B. TEAGUE, A. B., Raeford, N. C.
J. K. WILSON, A. B., Elizabeth City, N. C.
P. D. GOLD, A. B., Raleigh, N. C.
T. D. WARREN, A. B., Newbern, N. C.
J. O. CARR, A. B., Wilmington, N. C.

1915

W. S. BERNARD, A. M., Chapel Hill, N. C.
J. Y. JOYNER, LL. D., Raleigh, N. C.
W. H. SWIFT, A. B., Greensboro, N. C.
R. H. SYKES, B. L., Durham, N. C.
GEORGE STEPHENS, A. B., Charlotte, N. C.

The plan of organization adopted by the General Association of the Alumni on June 2, 1911, is as follows:—1. A deliberative body to be known as *The General Assembly of the Alumni of the University of North Carolina*, composed of *delegates* from the Local Associations to meet yearly on such day of Commencement Week as has been previously arranged. 2. A directing board of fifteen to be known as *The Alumni Council*, elected by the General Assembly, the officers of which board shall be the officers of the General Assembly. 3. Local

* Term of office expires at end of Spring Term of the University of the year indicated.

Associations to be known by the names of their respective counties and towns. For a printed form of this constitution in detail application should be made to Mr. Wm. S. Bernard, Chapel Hill, N. C.

Membership in the General Association of the Alumni includes all persons who have matriculated at the University of North Carolina in any department except the Summer School and all who are or have been officers of the institution.

LOCAL ASSOCIATIONS

ALAMANCE COUNTY ALUMNI ASSOCIATION, Burlington, N. C.

W. H. Carroll, *President*.

E. S. W. Dameron, *Secretary*.

ANSON COUNTY ALUMNI ASSOCIATION, Wadesboro, N. C.

W. K. Boggan, *President*.

J. E. Hart, M. D., *Secretary*.

BERTIE COUNTY ALUMNI ASSOCIATION, Windsor, N. C.

Francis D. Winston, *President*.

Francis Gillam, *Secretary*.

BUNCOMBE COUNTY ALUMNI ASSOCIATION, Asheville, N. C.

J. C. Martin, *President*.

L. M. Bourne, *Secretary*.

CABARRUS COUNTY ALUMNI ASSOCIATION, Concord, N. C.

L. T. Hartsel, *President*.

J. W. Cannon, Jr., *Secretary*.

CALDWELL COUNTY ALUMNI ASSOCIATION, Lenoir, N. C.

A. A. Kent, *President*.

L. A. Dysart, *Secretary*.

CATAWBA COUNTY ALUMNI ASSOCIATION, Hickory, N. C.

L. F. Abernethy, *President*.

B. B. Blackwelder, *Secretary*.

CHATHAM COUNTY ALUMNI ASSOCIATION, Pittsboro, N. C.

_____, *President*.

I. S. London, *Secretary*.

CRAVEN COUNTY ALUMNI ASSOCIATION, Newbern, N. C.

A. D. Ward, *President*.

William Dunn, Jr., *Secretary*.

CUMBERLAND COUNTY ALUMNI ASSOCIATION, Fayetteville, N. C.

E. J. Hale, LL. D., *President*.

C. G. Rose, *Secretary*.

- DAVIDSON COUNTY ALUMNI ASSOCIATION, Lexington, N. C.
Z. V. Walser, *President*.
J. F. Spruill, *Secretary*.
- DURHAM COUNTY ALUMNI ASSOCIATION, Durham, N. C.
R. H. Sykes, *President*.
J. S. Manning, Jr., *Secretary*.
- EDGECOMBE COUNTY ALUMNI ASSOCIATION, Tarboro, N. C.
_____, *President*.
George Howard, *Vice-President*.
- EDGECOMBE COUNTY ALUMNI ASSOCIATION, Rocky Mount, N. C.
Jos. B. Ramsey, *President*.
R. M. Wilson, *Secretary*.
- FORSYTHE COUNTY ALUMNI ASSOCIATION, Winston-Salem, N. C.
Howard A. Rondthaler, D. D., *President*.
Jas. A. Gray, Jr., *Secretary*.
- GASTON COUNTY ALUMNI ASSOCIATION, Gastonia, N. C.
A. G. Mangum, *President*.
E. R. Rankin, *Secretary*.
- GASTON COUNTY ALUMNI ASSOCIATION, Cherryville, N. C.
W. T. Usry, *President*.
M. E. Hoffman, *Secretary*.
- GRANVILLE COUNTY ALUMNI ASSOCIATION, Oxford, N. C.
A. W. Graham, *President*.
F. M. Pinnix, *Secretary*.
- GUILFORD COUNTY ALUMNI ASSOCIATION, Greensboro, N. C.
Clem G. Wright, *President*.
Marmaduke Robins, *Secretary*.
- GUILFORD COUNTY ALUMNI ASSOCIATION, High Point, N. C.
W. P. Reagan, *President*.
T. J. Gold, *Secretary*.
- HENDERSON COUNTY ALUMNI ASSOCIATION, Hendersonville, N. C.
Michael Schenck, *President*.
Louis Hesterly, *Secretary*.
- IREDELL COUNTY ALUMNI ASSOCIATION, Mooresville, N. C.
E. W. Brawley, *President*.
A. C. Kerley, *Secretary*.
- JOHNSTON COUNTY ALUMNI ASSOCIATION, Smithfield, N. C.
E. W. Pou, *President*.
H. P. Stevens, *Secretary*.

LENOIR COUNTY ALUMNI ASSOCIATION, Kinston, N. C.

_____, *President.*

F. I. Sutton, *Secretary.*

LINCOLN COUNTY ALUMNI ASSOCIATION, Lincolnton, N. C.

_____, *President.*

K. B. Nixon, *Secretary.*

MACON COUNTY ALUMNI ASSOCIATION.

S. H. Lyle, Jr., *President.*

R. D. Sisk, *Secretary.*

MARTIN COUNTY ALUMNI ASSOCIATION, Williamston, N. C.

Sylvester Hassell, *President.*

H. A. Biggs, *Secretary.*

MECKLENBURG COUNTY ALUMNI ASSOCIATION, Charlotte, N. C.

C. W. Tillett, Jr., *President.*

N. R. Graham, *Secretary.*

NEW HANOVER COUNTY ALUMNI ASSOCIATION, Wilmington, N. C.

Marsden Bellamy, *President.*

Louis Goodman, *Secretary.*

ORANGE COUNTY ALUMNI ASSOCIATION, Hillsboro, N. C.

John W. Graham, *President.*

S. P. Lockhart, *Secretary.*

ORANGE COUNTY ALUMNI ASSOCIATION, Chapel Hill, N. C.

Kemp P. Battle, *President.*

Collier Cobb, *Secretary.*

PASQUOTANK COUNTY ALUMNI ASSOCIATION, Elizabeth City, N. C.

J. P. Overman, *President.*

J. K. Wilson, *Secretary.*

PERQUIMANS COUNTY ALUMNI ASSOCIATION.

Affiliates with Pasquotank Co. Alum. Ass'n.

PITT COUNTY ALUMNI ASSOCIATION, Greenville, N. C.

_____, *President.*

A. T. Moore, *Secretary.*

RANDOLPH COUNTY ALUMNI ASSOCIATION, Ashboro, N. C.

A. C. McAlister, *President.*

H. B. Hiatt, M. D., *Secretary.*

RICHMOND COUNTY ALUMNI ASSOCIATION, Rockingham, N. C.

_____, *President.*

H. C. Dockery, *Secretary.*

- ROBESON COUNTY ALUMNI ASSOCIATION, Red Springs, N. C.
J. L. McMillan, M. D., *President*.
Hamilton McMillan, *Secretary*.
- ROWAN COUNTY ALUMNI ASSOCIATION, Salisbury, N. C.
Walter Murphy, *President*.
A. T. Allen, *Secretary*.
- SAMPSON COUNTY ALUMNI ASSOCIATION, Clinton, N. C.
F. B. Johnson, *President*.
L. C. Kerr, *Secretary*.
- SURRY COUNTY ALUMNI ASSOCIATION, Mount Airy, N. C.
_____, *President*.
D. C. Absher, *Secretary*.
- UNION COUNTY ALUMNI ASSOCIATION, Monroe, N. C.
W. B. Love, *President*.
J. C. M. Vann, *Secretary*.
- WAKE COUNTY ALUMNI ASSOCIATION, Raleigh, N. C.
F. M. Harper, *President*.
J. B. Cheshire, Jr., *Secretary*.
- WAYNE COUNTY ALUMNI ASSOCIATION, Goldsboro, N. C.
A. H. Edgerton, *President*.
S. F. Teague, *Secretary*.
- WILSON COUNTY ALUMNI ASSOCIATION, Wilson, N. C.
T. J. Hadley, *President*.
_____, *Secretary*.
- ATLANTA ALUMNI ASSOCIATION, Atlanta, Ga.
Sheppard Bryan, *President*.
T. B. Higdon, *Secretary*.
- BIRMINGHAM ALUMNI ASSOCIATION, Birmingham, Ala.
Warren Kluttz, *President*.
Wade Oldham, *Secretary*.
- NEW YORK ALUMNI ASSOCIATION, New York, N. Y.
Augustus Van Wyck, *President*.
Francis A. Gudger, *Secretary*.
- NORFOLK ALUMNI ASSOCIATION, Norfolk, Va.
J. H. Winston, *President*.
G. R. Berkeley, M. D., *Secretary*.

SCHEDULE OF RECITATIONS, 1914-1915

	8:30	9:25	9:45	10:40	11:35	12:30	2:30
MON.	A Chem. 7A Educa'n 3, 4 Eng. 2, II Geology 1 German A, I German B German 1, II Greek 7 Latin 1, II, V Math. 1, I, III, V Math. 5 Physics 6 Pub. Spk'g. 1, VII	CHAPEL	B Chem. 2 Chem. 7B Educa'n 9, 10 Eng. 1, IV Eng. 6 French A, II French 1, I French 1, IV Germ. A, IV Greek 2 History 1, I Latin 2, IV Math. 1, VIII X Math. 3A Math. 8 Math. 17 Philos. 4 Pub. Spk'g 1, I	C Chem. 16 Educa'n 7 Eng. 1, III Eng. 4 Eng. 7 Geology 7 Greek 1, II History 1, II Latin 1, I, IV Latin 2, II Math. 10 Physics 1, I Zoology 1	D Chem. 1 Econom. 4 Educa'n 5, 6 Eng. 3 French 1, III French 2 Geology 3 German 2B Greek A History 8 Latin 1, III Math. 1, VII IX Math. 4 Math. 7A Pub. Spk'g. 1, VII	E Educa'n 1, 2 Eng. 2, IV French A, IV Germ. A, II Germ. 3 Greek 1, I Hist'y 1, IV History 7 Latin 1, VI, VII Math. 1, II, IV, VI Math. 2, II Philos. 2	Pub. Spk'g. 1, V Laboratory: Chem. 1, I Chem. 3A Chem. 4 Chem. 8 Chem. 9 Physics 1, I Physics 4 Zoology 2
TUES.	F Botany 2 Chem. 7 Eng. 2, III Eng. 3 Eng. 11 Geology 8 German 6 Greek A Greek 3 Latin 1, III Math. 1, VII, IX Math. 16 Physics 4 Pub. Spk'g. 2	CHAPEL	G Chem. 5 Econom. 2 Eng. 1, II, VI Eng. 2, I, V Eng. 2A English 5 French 1, II Geology 4 Germ. A, III Germ. 1, III Greek 5 Greek 14 History 1, V History 10 Latin 4 Latin 7, 8 Math. 7 Philos. 1 Physics A Physics 10	H Bot. 1 Chem. 6 Eng. 1, V Eng. 14 Eng. 2A French A, III French 4 Greek 6 History 11 Italian 1 Latin 2, 1 III Latin 13 Libr. Adm. Philos. 6 Physics 1, II Physics 15 Pub. Spk'g. 3 Spanish 1	I Econom. 1 Educa'n 13 Educa'n 15 Eng. 1, I, VII Eng. 10 French A, I, V Germ. 1, I Greek 15 Hist'y 1, III History 3 Latin 10 Math. 2, I Math. 3 Math. 13 Pub. Spk'g. 1, VI Spanish 2	K Econom. 8 Educa'n 11 English 12 German 2A German 3 Greek 1, I History 5 History 9 Latin 1, VI, VII Math. 1, II, IV, VI Math. 11 Philos. 3 Physics 5	Pub. Spk'g. 1, IV Laboratory: Botany 1, I Chem. 1, II Chem. 3, I Chem. 8 Drawing 2, 3 Geology 2 Physics 1, II
WED.	A Educa'n 3, 4 Eng. 2, II Geology 1 German A, I German B German 1, II Greek 7 Latin 1, II, V Math. 1, I, III, V Math. 5 Physics 6	CHAPEL	B Chem. 2 Chem. 7B Educa'n 9, 10 Eng. 1, IV Eng. 6 French A, II French 1, I French 1, IV Geology 6 German A, IV Greek 2 History 1, I History 15 Latin 2, IV Math. 1, VIII X Math. 3A Math. 8 Philos. 4	C Chem. 16 Education 7 Eng. 1, III Eng. 4 Eng. 16 Geology 7 Greek 1, II History 1, II History 2 Latin 1, I, IV Latin 2, II Math. 3B Math. 10 Physics 1, I Zoology 1	D Chem. 1 Econom. 4 Educa'n 5, 6 French 1, III French 2 Geology 3 German 2B Greek A Greek 4 History 8 Latin 1, III Latin 9 Math. 1, VII, IX Math. 4 Math. 7A Pub. Spk'g. 4	E Educa'n 1, 2 Eng. 2, IV French A, IV Germ. A, II German 7B Greek 1, I Hist'y 1, IV History 7 Latin 1, VI, VII Math. 1, II, IV, VI Math. 2, II Physics 2	Laboratory: Botany 1, II Chem. 1, III Chem. 3A, Chem. 4 Chem. 8 Drawing 2, 3 Physics 10

SCHEDULE OF RECITATIONS, 1914-1915—Continued

	8:30	9:25	9:45	10:40	11:35	12:30	2:30
THURS	F Chem. 7 Eng. 2, III Eng. 3 Eng. 11 Geology 8 German 6 Latin 1, II, V Math. 1, I, III, V Math. 16 Pub. Spk'g. 2	CHAPEL	G Chem. 5 Econom. 2 Eng. 1, II, VI Eng. 2, I, V Eng. 2A English 5 French 1, II French 3 Geology 4 Germ. A, III Germ. 1, III Greek 5 Greek 14 History 1, V History 10 Latin 4 Latin 7, 8 Math. 7 Philos. 1 Physics A Physics 10	H Botany 1 Chem. 6 Eng. 1, V Eng. 14 French A, III French 4 Greek 6 History 11 Italian 1 Latin 2, I, III Latin 13 Libr. Admn. Philos. 6 Physics 1, II Physics 15 Pub. Spk'g. 3 Spanish 1	I Econom. 1 Educa'n 13 Eng. 1, I, VII Eng. 10 French A, I, V Germ. 1, I Greek 15 History 1, III History 3 History 10 Latin 10 Math. 2, I Math. 3 Math. 13 Spanish 2	K Econom. 3 Educa'n 11 Educa'n 15 Eng. 12 Germ. 2A Germ. 3 Greek 1, II History 5 History 9 Latin 1, I, IV Math. 1, VIII X Math. 10 Math. 11 Philos. 3 Physics 5 Pub. Spk'g. 1, III	Laboratory: Botany 2 Chem. 1, IV Chem. 3, I Chem. 8 Chem. 9 Drawing 1 Geology 2 Physics 4 Physics 11 Zoology 1, I Zoology 2
FRI.	A Chem. 7A Educa'n 3, 4 Eng. 2, II Geology 1 Germ. A, I Germ. B Germ. 1, II Greek 7 Latin 1, II, V Math. 1, I, III, V Math. 5 Physics 6	CHAPEL	B Chem. 2 Chem. 3A Educa'n 9, 10 Eng. 1, IV Eng. 6 French A, II French 1, I French 1, IV Germ. A, IV Greek 2 History 1, I History 15 Latin 2, IV Math. 1, VIII, X Math. 3A Math. 8 Math. 17 Philos. 4 Physics 11	C Chem. 16 Chem. 3A Education 7 Eng. 1, III Eng. 4 Eng. 16 Geology 7 Greek 1, II History 1, II History 2 Latin 1, I, IV Latin 2, II Math. 3B Math. 10 Physics 1, I Physics 11	D Chem. 1 Econom. 4 Educa'n 16 Eng. 9 French 1, III French 2 Geology 3 Germ. 2B Greek A Greek 4 History 8 Latin 1, III Latin 9 Math. 1, VII, IX Math. 4 Math. 7A Pub. Spk'g. 4	E Educa'n 1, 2 Eng. 2, IV French A, IV German A, II German 7B Greek 1, I Hist'y 1, IV History 7 Latin 1, VI, VII Math. 1, II, IV, VI Math. 2, II Philos. 2 Physics 2	Pub. Spk'g. 1, II Laboratory: Botany 2 Chem. 1, V Chem. 4 Chem. 8 Geology 4 Zoology 1, II Zoology 2
SAT.	F Botany 3 Chem. 5 Eng. 2, III Eng. 3 Eng. 11 Geology 6 German 6 Math. 16 Physics 14 Zoology 3		G Botany 3 Chem. 5 Drawing 1 Eng. 1, II, VI Eng. 2, I, V Eng. 2A Eng. 5 French 1, II French 3 Germ. A, III Germ. 1, III History 1, V Philos. 1 Physics A Physics 10 Physics 14 Zoology 3	H Botany 3 Eng. 1, V Eng. 14 French A, III French 4 Italian 1 Latin 2, 1, III Philos. 6 Physics 1, II Physics 14 Spanish 1 Zoology 3	I Botany 3 Econom. 1 Eng. 1, I, VII English 10 French A, I, V Germ. 1, I Hist'y 1, III History 3 Latin 3 Math. 2, I Math. 3 Physics 14 Spanish 2 Zoology 3	K Botany 3 Germ. 1A Germ. 2A Physics 14 Zoology 3	

SCHEDULE OF EXAMINATIONS

FIRST DAY	SECOND DAY	THIRD DAY	FOURTH DAY	FIFTH DAY
Chemistry 2 Chemistry 7B Education 9 English 6 French A French 1 Geology 6 German A Greek 2 History 1 History 15 Latin 2 Math. 1 Math. 3A Math. 8 Math. 17 Philosophy 4	Economics 3 Educa'n 10 German 2A History 5 History 9 Math. 11 Philosophy 3 Physics 5	Chemistry 1 Economics 4 Educat'n 5, 6 English 9 French 2 Geology 3 German 2B Greek A History 8 Latin 9 Math. 1 Math. 4 Math. 7A	Chemistry 6 English 1 English 14 French A French 4 Greek 6 History 11 Italian 1 Latin 2 Library Adm. Philosophy 6 Physics 1 Physics 15 Pub. Snkg. 3 Spanish 1	Botany 1 Chemistry 5 Economics 5 English 1 English 2 English 5 French 1 French 3 Geology 4 German A Greek 5 Greek 14 History 10 Latin 4 Latin 7, 8 Math. 7 Math. 15 Philosophy 1 Physics A
SIXTH DAY	SEVENTH DAY	EIGHTH DAY	NINTH DAY	TENTH DAY
Economics 1 English 1 English 10 German 1 Greek 15 History 1 History 3 Latin 3 Latin 10 Math. 2 Math. 3 Math. 13	Botany 2 Chemistry 7 English 3 English 12 Geology 8 German 4 German 6 Greek 3 Math. 16 Physics 4 Pub. Spkg. 2	Chem. 16 Education 7 English 1 English 4 English 16 Geology 7 Greek 1 History 4 Latin 1 Latin 2 Math. 3B Math. 10 Physics 1 Physics 11 Zoology 1	Chem. 7A Educa'n 3, 4 English 2 Geology 1 German A German A German 1 German 7 Greek 4 Latin 1 Latin 1 Math. 1 Physics 6	Educat'n 1, 2 English 2 French A German A German 3 Greek 1 History 7 Latin 1 Math. 1 Math. 2 Philosophy 2 Physics 2

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